The Iron

READING MATTER PAGE 32.

A Review of the Hardware, Iron and Metal Trades.

ADVERTISEMENTS PAGE 19

Published every Thursday Morning by David Williams, No. 83 Reade Street, New York. Entered at the Post Office, New York, as Second-Class Matter.

Vol. XXXVI: No. 10.

New York, Thursday, May 8, 1884.

\$4.50 a Year, Including Postage. Single Copies, Ten Cents.

The Hungarian Coal Miners.

A correspondent of the Philadelphia Press. writing from Shenandoah, Pa., says: All through the anthracite coal regions the relations between the various classes of labor-

ing men are growing every day more sensitive. Perhaps it would be more correct to the differences between different classes of labor. It needs but little study of this subject here to discover that there may be a great deal of difficulty in subduing the grow-ing discord between the workingmen who make up the bulk of the population in min-ing communities. The country has had a taste of this character of conflict in the re-volt of nearly all classes of citizens on the Pacific coast against the Chinese.

Some new emigrants are now coming into the coal regions, to create here the same agitation as the Chinamen did in California. The English, Welsh, Irish and almost all other miners are getting restless at the sight of these laborers, and out of temper at their methods and represent They make a fair of these laborers, and out of temper at their methods and purposes. They make a fair claim that they come to this country to be-come citizens, and to add to its wealth and character; that they bring families to raise, to increase the sum of our population. It is their ambition to make a good home, to edu-cate their children, and in many respects to wake them good citizens of this new Repub. cate their children, and in many respects to make them good citizens of this new Republic. To do this they must have work at good wages and broader opportunities than this lower order of people demand, against whom they now proclaim.

Employed about the coal mines, ever since I can recall anything about mining, there have been a large number of old gen and

have been a large number of old men and boys. They worked in the breakers, pick-ing slate and doing other service. But of late years there has been a scarcity of this class of toilers, for very many of the miners, getting ambitious for their sons, began sending them to school, in order to prepare them for higher duties than digging coal. Each year labor for the breakers grew scarcer. Finally the steamship companies doing a large steerage business took the matter in hand. It is claimed that they sent their agents through the European countries in hand. It is claimed that they sent their agents through the European countries in search of people who were willing to work cheap and live upon very humble fare. They settled upon the Hungarians as meeting these demands. They have been importing these people in large numbers. From 15 to 20 live in a single shanty, one woman doing the cooking and housework of the mess. They spend little or nothing for maintenance, and it is claimed that the average expenditures of the Hungarians who dwell in this region will not exceed \$10 a month, all told. Every dollar besides the actual cost of living is usually sent by draft to the old all told. Every dollar besides the actual cost of living is usually sent by draft to the old country at the end of every month. They are very dirty in their habits, clannish in their way of living, and seem to be simply bent upon gain. There seems no difference of opinion among the miners of the different nationalities. Practically, all naturalized laboring men or those expecting tender. laboring men, or those expecting to make this their home, are bitterly hostile to this new class.

They have crowded the old men and boys

out of the coal breakers and taken possession of a good deal of the unskilled labor of sion of a good deal of the unskilled labor of the region. The majority of tradesmen and other people of the village are quietly almost as much down upon them as the miners, for they do nothing to build up the town. The very fact that many of the people outside of the miners would not object to seeing them driven out is one of the serious aspects of the ituation. The demonstrations of the readsituation. The demonstrations so far made are not serious if it were not for the temper of those with whom they are surrounded. In this place of 12,000 people, perhaps, there are fully 2000 Hungarians. In Mahanoy City, Ashland and Wilkesbarre the ratio about the same. The Philadelphia and Reading Coal and Iron Company virtually con-trols the business interests of this region, and has, it is said, taken this matter in hand in a quiet way. Its detectives are watching the movement, and taking every precaution to protect the company's property in case of an outbreak. There is a rumor here that this corporation had issued an order to its superintendents that no more Hungarians shall be employed upon their works. The peaceable character of the Hungarians may long delay an open rupture, but if they should retaliate when attacked there is no picturing the result. The boys of the village have so far been the principal aggressors, stoning the "Huns," as they are called in this country, on their way home from work and other occasions.

Not more than eight months have elapsed since the first batch of Hungarians made their appearance here. Stolid and dumb as they are, they do not lack courage when pushed to the wall, and since they have been understood the situation they have been arming themselves with knives and pistols. Not more than eight months have elapsed The saving fact is that there is plenty of work for everybody. The mines are working on full time, and the town is being rebuilt

which they prepare for themselves, any community which has a proper regard for sanitation must, for its own protection, force become a momentous one. them to quit their crowded quarters, reform their personal habits and cease the use of putrid food. The authorities here are taking such a step, to which they have been com-pelled by the prevalence of small-pox in the town. A board of health has been estab-lished, with plenary powers to cause the evacuation of tenement houses that are over-crowded, and to enforce all other sanitary crowded, and to enforce all other sanitary

Natural Gas Near Steubenville.

It is reported from Steubenville, Ohio, that that section of the Ohio Valley is worked up to a high pitch over the discovery of natural gas. While the efforts in that direction have been unsuccessful in Steu-benville, the villages of Lazearville and Midcrowded, and to enforce all other sanitary measures that they may deem necessary.

Mr. Jacob Foster, local editor of the Mining Herald, found, he said, "426 Hungarians living in 37 small houses. Some of them work as low as \$2 per week, and pay \$2.50 per month for board. They buy their own meat and flour, and the meat is usually the vilest refuse of the slaughter-houses. Just be vilest refuse of the slaughter-houses. Just be viled and Midway, adjoining Wellsburg, W. Va., on the line of the Pittsburgh, Wheeling and Kentucky Railroad, six miles from the city, are more fortunate, having within easy reach five flowing gas wells. South of the town are Barclay wells Nos. 1 and 2, struck within two weeks; adjoining these is the Rocky Point well, while on the Ohio side, just op-like the well. In the office of the comwant, and Kentucky Railroad, six miles from the city, are flowing gas wells.

A California Manufacturers' Association of California. The office is lowed to the first the well. In the office of the comwant, and the well, in the well. In the office of the comwant, and the well, in the office of the comwant, and the well, in the well. In the office of the comwant, and the well, in the well. In the office of the comwant, and the well, in the well. In the office of the comwant, and the well, in the well. In the office of the comwant, and the well, in the well. In the office of the comwant, and the well, in the well is needed for reading or writing at way, adjoining Wellsburg, we have, and the well, in the well in the well, in the well is needed for reading or writing at way, adjoining the well, in the well is needed for reading or writing at way, adjoining the well, in the well in the well, in the well in the well, in the well is needed for reading or writing at way, adjoining way, adjoining the well, in the well is needed for reading or writing at way and the way, adjoining the way, adjoining the way, adjoining the way and the way, adjoining the way and the way, adjoining the way and the way, adjoining the way a

In connection with the gas well the company will have their glassworks for the manufacture of table lamps and ware in working order by July I, and will use nothing but gas as fuel. They are in possession of a new patent furnace, whereby they can use either coal or gas without making the changes or cooling the furnace. Besides supplying their works, the company will supply private families. This will make an immense saving. Hundreds of people are visiting the well. In the office of the company, 30 feet from the well, no other light

In connection with the gas well the comamend the bill were overwhelmingly de-feated. Thus, Mr. Otis, of Westchester County, pointed out in vain that the indemnity bond was ridiculously small in view of the costly buildings on Broadway that would be imperiled by the building of the Arcade. He moved that the bond be made \$3,000,000 instead of \$600,000. The amendment was rejected by a vote of 31 to 77. The bill was then passed by a vote of 100 to 8. The Assembly also passed by a vote of 97 to I Senator Robb's bill for the enlargement of the Grand Central Depot in New York. At the last moment the New York members of the Assembly who had seen great faults in the bill abruptly became its friends.



The advantages of gas-heated reverberatory furnaces over those heated by solid or raw fuel are so many as to have led to their adoption by many manufacturers, notwithadoption by many manufacturers, notwin-standing the great expense incurred in their construction. Their costly construction no doubt has stood in the way of their more general adoption by manufactures. Old and heretofore undesirable forms of puddling and heating furnaces have been retained because their reconstruction would require that large sums of money be charged to profit and loss, and that still larger sums be charged to construction account to cover the expense of building new ones. The problem before iron manufacturers has been to utilize their old plant to as great an extent as possible, and to have the changes necessary in order to secure the economic use, and com-bustion as slight as practicable and involving

the least possible expense.

Mr. William Stubblebine, of Bethlehem, Mr. William Stubblebine, of Bethlehem, Pa., has invented and put in use a furfurnace which he claims secures these advantages, retaining the maximum of the old furnaces and requiring a minimum of change. Before describing this furnace, a few words about the principle of combustion in the old reverberatory heating and puddling furnaces. The first product of combustion at the grate-bars of the furnace is carbonic acid. In passing through the is carbonic acid. In passing through the upper layers of fuel the carbonic acid becomes dissociated, the oxygen takes up additional carbon and becomes carbonic oxide, one volume of CO₂ becoming two volumes of CO. In this operation a large part of the heat developed in the first stage of the proheat developed in the first stage of the pro-cess is lost. Many attempts, with varying success, have been made to burn this car-bonic oxide, either in the upper part of the fire-box or while passing through the furnace chamber. In the Stubblebine fur-nace a portion of the gases from the fire-box is mixed with the upper blast, and the mixture thus formed passes into the heating chamber through openings in the roof of the furnace. The invention consists essentially of the combination in the heating or puddling furnace of a fire-chamber and a gaschamber communicating with the fire-chamchamber communicating with the fire-chamber through openings, some of which are on one side of the gas-chamber and others on the opposite side. Referring to the accompanying cuts, the rear openings A, in Fig. 1, communicating with the fire-chamber, the front openings B, with the working chamber, these communications are the side of the chamber of of these communicate with the mixing cham-ber, which is built over the fire-chamber. ber, which is built over the introduced into the The upper air blast C is introduced into the roof of the furnace between the gas-roof of the furnace between the gas-roof that fire-chamber. This roof of the furnace between the gas-chamber and the fire-chamber. This is forced over the roof of the fur-nace for two purposes—first, to keep the bricks cool and make the roof last longer; second, to heat the air. As the heated air passes out it enters the 6-inch pipe D, which reaches from one side of the furnace to the other, and is placed directly above the ports A, the heat from the fire-chamber giving additional heat to the air in pipe D before it passes to the ports B B, where the air and gases are thoroughly mixed. On the pipe D there is a valve to regulate the amo air required in the furnace to give complete combustion. There is also a blast-pipe that supplies air under the grate of the furnaces. This also has a regulating valve to give the proper amount of air to the fire for combus-tion of the fuel, and which the workman regulates according to the requirements of his furnace. The furnace, it is said, cleans instantly, the heat becomes intense, and the whole action is under perfect control. accompanying illustrations will convey to the reader a clear idea of the form, arrangement and position of the gas-mixing cham-

ber, Fig. 3 showing a vertical and Fig. 4 a horizontal section. (See page 7.)

The good results attending the use of this invention are due, it is believed, first, to the mode of introducing the blast into the employees. It is desired to extend this chamber, so that there is a freer passage of the gases into the same, and a more determined by the gases combined with air chamber, so that there is a freer passage of to secure perfect combustion. By this the contact of oxygen with the metal and consequent waste which would ensue with a vigorous blast is prevented. The same is true of the lower blast, which is both gentle and so regulated as to secure the greatest

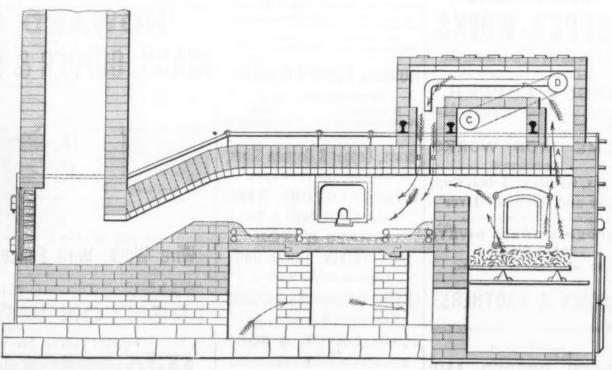
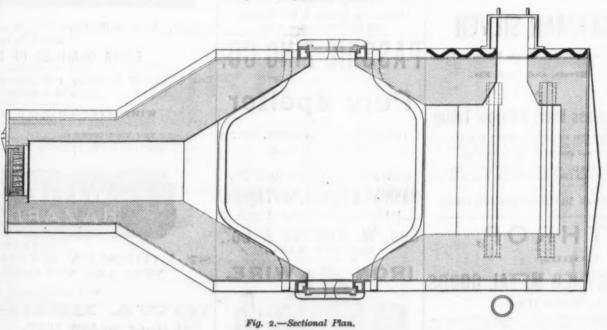


Fig. 1.-Longitudinal Section.



THE STUBBLEBINE FURNACE.

now they are mainly coming into contact with the boys who have been employed as slate-pickers in the mines. The boys go to school in the winter and work in the mines in summer and spring. They are getting out of school now, and while they used to make from \$15\$ to \$20 a month in the breakers, the Hungarians are doing the same work at \$2 or \$3 a week."

posite, is the Spaulding Iron Works' well. California street. A. S. Hallidie is president, Irving M. Scott, vice-president; N. W. Spaulding, treasurer; George C. Hickox, secretary. The purposes of the organization are "to promote manufacturing interests of the Southside, Pittsburgh.

Five months ago, with every discouragement possible, the Danzells began to bore in

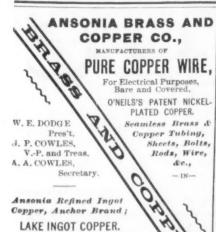
workmen, and probably one-fourth of them are good mechanics—blacksmiths, masons, carpenters and the like. I have had as many as

of the Southside, Pittaburgh.

Five months ago, with every discouragement possible, the Danzells began to bore in a flat, marshy piece of ground about two miles due north of the Barclay wells. On miles due north of the Barclay wells. On of the tago of the tago of the strong vein was struck, and lighted for the first time the next evening. The gas is of a pure quality, entirely free from salt water and perfectly dry. The flame, when lit, extends 40 feet, and the light is plainly seen in this city, six miles away. The well has 907 feet of cening. The earth about the mouth after the fire which nearly swept it out of earlies and the town as being result of the pipe is literally baked, while the mouth them last year from \$1 to \$1.25 daily. I have go on half time, which they will do before the middle of May, and the new buildings in the town are finished, the crisis may the full figures. My men have just struck the pressure fully up before the middle of May, and the new buildings in the town are finished, the crisis may come. If then there are more hands than employment can be found for, and the Hungarians can be picked up for wages that nobody else can live on, an organized movement to drive them away by any form of persecution may be looked for. Herded together in squalor and filth, eating nasty food and drinking a vile alcoholic compound what the market price of labor is they want lone-fourth of a mile away continually rattle. The company believe the pressure fully up to the McGuigan well in Pennsylvania, which is 300 pounds to the square inch. A 16-foot plank was placed over the hole of the well, and with as many men as could stand on it was lifted into the air. As soon as possible the Dalzells will run a 25-foot pipe from maintain the cause of those who insist that these cheap laborers must go. If these dis-

cated Room 43, Merchants' Exchange, 431 California street. A. S. Hallidie is president, Irving M. Scott, vice-president; N. W. Spaulding, treasurer; George C. Hickox, secretary. The purposes of the organization are "to promote manufacturing interests of this coast by establishing more intimate and reciprocal relations between the various mechanical and other industries. Its membership already ambraces, proposed of two bership already embraces upward of names, representing nearly every prominent manufacturing and laboring pursuit, en-gaging large capital and many thousand manufacturing interest, however small or remote, in the State, believing such combination will create new and advance existing enterprises, the special object being to stimulate and assist local production and manufacturing by mutual encouragement, patronage and protection, thereby increasing the sources and means of amployment for the sources and means of employment for many thousands more of our people who wish and only want opportunities to make their time and labor useful.

On the 1st inst., at Albany, the Broadway Arcade Railroad bill, which authorizes the construction of an underground railway on that thoroughfare, was passed by the Assem-



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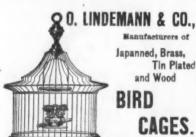
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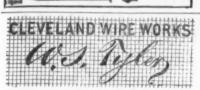
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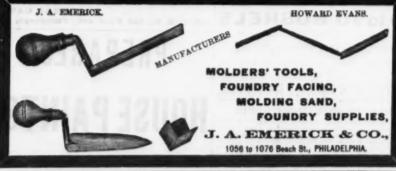
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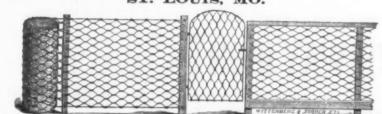
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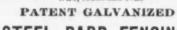
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A correspondent sends us the following inquiry, covering an important point in patent law, which is made clear by a hypo-thetical illustration. The point, however, is Foundry & Forge Pig Iron.

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one of general interest to manufacturers:
"Does a patent for a process or machine for manufacturing in a new way an article already in use, and not itself a patentable article, give the patentee a legal claim for royalty upon the product of an infringing process or machine? Has the owner of the infringed patent a legal claim for royalty upon those through or into whose hands the

upon those through or into whose hands the product has passed as dealers or consumers in Hypothetical Illustration.—Cigarettes are made usually by rolling with the fingers, pasting by passing a brush along the edge of the paper, and cutting off the superfluous tobacco at the ends with scissors. A man patents a machine which rolls the cigarette, NEW AND OLD RAILS, patents a machine which rolls the cigarette, pastes the paper by a mechanical device and cuts off the ends by means of knives. The product of these two processes are as nearly as possible identical in size, weight and appearance. If the machine is infringed, does the product of the infringing machine owe the inventor royalty? or must be collect it, if at all, from the machine itself?"

We referred the above to an xpert in patent law, and print his reply below: Spiegeleisen Iron Ores

Bessemer Pig Iron, brand "ULVERSTON."

Malleable Pig Iron, brand "U. H. M."

N. B. ALLEN & CO.'S DINAS FIRE BRICKS. tent law, and print his reply below:
The product does not owe anything. That is well settled everywhere. It is interesting to trace the border line of liability for an infringement. In case of a patent on a ma-JEROME KEELEY & CO., chine the manufacturer, seller or user of the patented machine is liable. In France one is liable for merely having in his possession a patented machine, but in England and America that is not the law. A process is America that is not the law. A process is less tangible. A patent for a process is understood te be infringed only by the using of the process. Courts are liberal rather than technical. They have held that a lamp which required a chimney as a part of a combination was infringed by the making and selling of burners alone having the personnel of the process of the p culiarities set forth in the patent, and being burners which could not be used without chimneys. It being the custom in the trade to purchase chimneys separately and apply them, it was decided that those burners constructively contained the combination of the same with the chimney. By analogous reasoning the possession of apparatus or materials adapted for use in a patented process, and of no use for any other purpose, may be held to establish an infringement of a process; but no such case has been

reported.

The liability incurred by the infringer does not go with his property after it has passed out of his possession. The product of the patented process or machine is free to be bought, sold or used by any one, with-IRON COMMISSION MERCHANTS. out regard to any infringement which oc-curred in its manufacture. This was estab-lished in the Woodworth planer cases, where the use of the patented machine was licensed in rigorously established districts. It was PINE IRON WORKS, Pine Brand Plates; GLASGOW BRON CO., Plates and Muck Bars; SPRANG STEEL & RON CO. (Limited), Siemens-Martin (O; en Hearth) Seel, Universal and Sheared Plates, Angles and sought to prevent the transportation of the planed lumber from one district into another. REUBEN HAINES,

But that could not be sustained.

In all the complex questions arising in suits for infringements it has never been successfully urged that the product of a patented machine or process was liable. The question was raised in Boyd vs. McAlpine (3 McLane, 427). It was decided squarely in favor of the freedom of the product. The court said: "It is insisted that the sale of the thing manufactured by the patented machine is a violation of the patent. But this position is wholly unsustainable. The patent gives the exclusive right and liberty of making, constructing, using and vending to others to be used, the said improvement. A N. W. Cor. 23d and Race Streets, sale of the product of the machine is no viola tion of exclusive right to use, construct or sell the machine itself. If, therefore, the defendant has done nothing more than to purchase the bedsteads from Brown, who may manufacture them by an unjustifiable may manufacture them by an unjustantial use of the patented machine, still the person who may make the purchase from him has the right to sell. The product cannot be reached except in the hands of one who is in some manner connected with the use of the patented machine." This has never been overturned. The question has been but rarely raised. It is considered perfectly well estable. raised. It is considered perfectly well estab-

> In Merrill va. Yeomans, 4 Otto, 568, the United States Supreme Court canvassed the question of the liability of the product where a claim was dubious in its terms. It read: "I claim the above-described new manufacture of the deodorized heavy hydrocarbon oils, suitable for lubricating and other purposes, free from the characteristic odors of hydrocarbon oils, and having a slight smell like fatty oil, from hydrocarbon oils by treating substantially as is hereinbefore de-scribed."

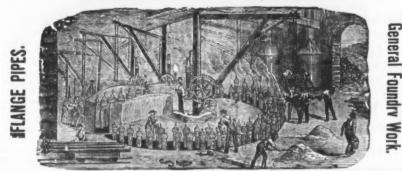
scribed."

The court, after canvassing the question whether the claim was for the product, said: "If, however, appellant's patent is only for the mo'e of treating these oils invented and described by him—in other words, his new process of making this new article of hydrocarbon oil—then it is clear the hydrocarbon oil—then it is clear the defendants have never infringed that patent, because they never used that process or any other, for they manufactured none of the oils which they bought and sold."

It is very common among railroad cor-corations to have leases executed for such a long term of years that perpetuity is practi-cally secured. So accustomed have railroad managers thus become to the fixing of very long periods for their operations that it is not surprising to notice a tendency toward the greater extension of the limits in which their bonded indebtedness will become due. The longest period of this kind which has yet come under our notice is the one proposed last week at a meeting of the stockholders of the Pittsburgh, Fort Wayne and Chicago Railway Company. It is proposed to issue bonds to be due at the option of the company after the year 2868, or only a little matter of 984 year hence. The time is coming—if, indeed, it has not already come—when bonds of this kind, representing undoubted value, will be in very good demand by investors in this country who desire to put their money where it will not be disturbed every few years by their securities being paid off, causing them much trouble in seeking other investments. investments.

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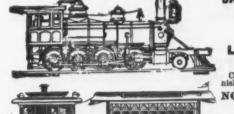
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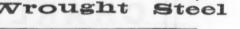
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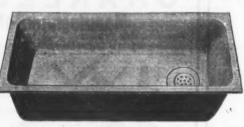
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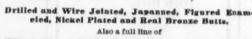
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In the lower portion this thickness was 34

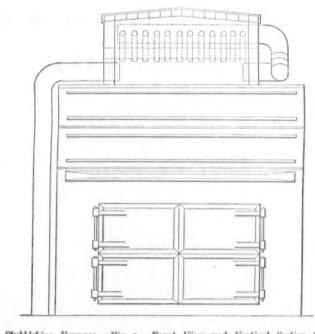
In the lower portion the middle portion it
was designed to be 26 mm., and in the upper
was designed to be 26 mm., and in the upper
lower portion 19 mm. But, during the execution
of the work, those portions were increased
to 30 and 26 mm. respectively. The shaft

In which the thickness of the metal differed.
In the lower portion it
was designed to be 26 mm., and in the upper
lower portion 19 mm. But, during the execution
8,000,000 cotton spindles in the New England States from 3,000,000 to 4,000,000 have
to 30 and 26 mm. respectively. The shaft

(Continued from Page I.)

the combustion, being almost instantaneous, the inside of each segment were three secures as a result a more intense heat than otherwise would be the case; and, further, this heat is developed where it is needed—that is, in a place from which the gases of such tubbing on the assumption that the

was not circular, but four-sided, the sides the forcing of dirt from the grate to the the forcing of dirt from the grate to the heating or puddling chamber. It is said from experience that the iron made in this furnace is much better than that produced by the ordinary method of combustion. The manner of working the furnace secures a clean fire, there being less dirt in it after working six or seven heats than often accumulates after three or four heats when the improvement is not used. The necessity of withdrawing the grate-bars as frequently as withdrawing the grate-bars as frequently as is otherwise done is consequently avoided. strips of lead 3 mm. (0.118 inch) thick. On The combustion, being almost instantaneous, secures as a result a more intense heat than otherwise would be the secure as a feather.



The Stubblebine Furnace,-Fig. 3.-Front View and Vertical Section Through Mixing Chamber.

charged with it traverse the whole length of shaft is circular, and of a diameter correst the heating chamber on their way to the sponding to the curvature of the segments. Calculated on this basis, the thickness of the

		ck Bar		Lbs.
No. 4 No. 6	 		 	106,778 120,556
Total	 		 	227,825
		Coal.		
No. 4 No. 6	 		 	64,800 62,400
		Ore.		

This is a remarkable showing. The output per puddler was nearly 21 tons a week, against, say, 7½ to 8 tons in the ordinary way. Coal used, about .56 ton to a ton of way. Coal puddled bar.

Rupture of Cast-Iron Tubbing.

The following gives the results of the working of these furnaces at the Bethlehem Iron Works for the week ending March 15, 1884.

Four puddlers and four helpers were employed, working 12 heats a day:

work does now stubble bird marker 15, 1884.

WORK DONE ON STUBBLEBING NEW GAS PUDDLING FURNACE FOR WEEK ENDING MARCH 15, 1884. sanctioned by experience and in conformity with the common practice, but, as an additional security, these dimensions were slightly exceeded. Thus, nothing was wanting to give confidence in the solidity of the structure. Yet this tubbing, calculated, as it was supposed, with a wide margin for safety, to resist a head of water of 42 m., gave way when the head had reached only 35 m. The rupture occurred in the middle of the segments, and extended from the bottom to a hight of 18 m. through 31 successive segments. The purpose of the author of this report is to show that tubbing of this character is not subjected solely to a stress of compression, as in the case of circular shafts, and that consequently the calculations which are based on that assumption are erroneous and dangerously misleading. Mons. P. Baneux, in a paper in Annales des Travaux Publics de Belgique, 1882, the following abstract of which appeared in the proceedings of the Institution of Civil En-

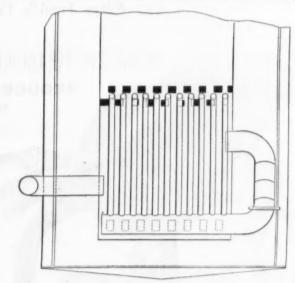


Fig. 4.—Horizontal Section Through Mixing Chamber.

gineers of London, gives an account of the is, the force which is brought to bear upon failure of iron shaft tubbing at the Baneux those pieces tends to cause flexure, and the

shaft at the Bâneux Colliery, in the Province of Liège, in Belgium, claims the earnest attention of mining engineers. The accident is striking, both from its novelty and from the fact that none of the universally adopted elements of security were absent. A committee of eminent engineers had designed the work, the quality of the materials and workmanship was beyond question, and the directorate had even increased the dimensions recommended by the engineers. The tubbing of the Bâneux shaft was required to resist the pressure of 42 m. (138 feet) head of water. It extended from the thill of a coal seam up to a hight of 72 sections of 0.60 m. each. This length of 44 m. was divided into three equal portions, in which the thickness of the metal differed. In the lower portion this thickness was 34 Lowell companies, who will shut down on Settled the segment in the middle, in the manner in which the rupture occurred at Bâneux. A careful measurement of some of the deformed segments showed that the versed sine had been diminished by from 1 to 2 cm. (.4 to .8 inch), while their chords had been diminished by from 2 to 4 cm. (.8 to 1.5 inches). The author recommends the adoption of a greater thickness of iron in these careful measurement of some of the deformed segments in the middle, in the manner in which the rupture occurred at Bâneux. A careful measurement of some of the deformed segments showed that the versed sine had been diminished by from 1 to 2 cm. (.4 to .8 inch), while their chords had been diminished by from 1 to 2 cm. (.4 to .8 inch), while their chords had been diminished by from 2 to 4 cm. (.8 to 1.5 inches). The author recommends the adoption of a greater thickness of iron in these careful measurement of some of the deformed segments showed that the versed safe in which the rupture occurred at Bâneux. A careful measurement of some of the deformed segments in the middle, in the careful measurement of some of the deformed segments showed that the versed sine had been diminished by from 1 to 2 cm. (.4 to .8 inch

Colliery, Belgium:

The rupture of the cast-iron tubbing of a shaft at the Baneux Colliery, in the Province the segment in the middle in the manner in the middle in the middle in the middle in the manner in the middle in the m strain thus set up increases with the radius



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This knife is the best in use for cutting down hay and straw in mow and stack, cutting fine feed from bale, cutting corn stalks for feed, cut-ting peat and ditching marshes.

The blade is best cast steel, spring temper, easily sharpened, and is giving universal satisfaction. A few moments' trial will show its merits, and parties once using it are unwilling to do without it. Its sales are fast increasing for exports as well as home trade, and it seems destined

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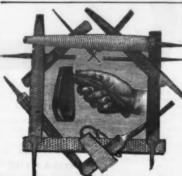
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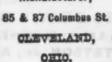
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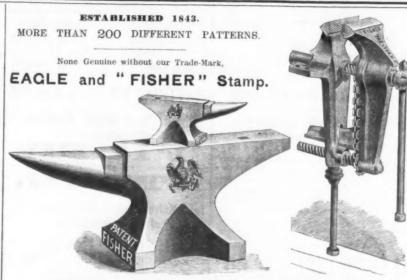
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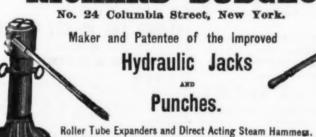
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The Jewel Flue-Hole Cutter.

their general combination and arrangement.
The device has been produced with the view of meeting all the requirements of the boiler-maker and the machinist in the way of a tool carrying blades capable of being renewed, so constructed as to be kept easily sharpened by grinding, for cutting accurate and smooth holes in boiler heads, safe plates and similar iron and steel surfaces. and similar iron and steel surfaces. As may be seen by the engraving, the body carries three cutters or blades. These are properly spirit and method of research, dimly forecurved and cleared. The body is made of the best machinery steel, and is case-hard-ened. The shank is left straight, and has sufficient stock to permit of its being fitted to the socket of any press required for its size. The lead pins for all of the sizes are made and inch in diameter, unless for special conditions. The cutters, lead pins, gibs and screws are of the best English steel. All the parts are made to gauge, and in 1600, an apparatus for raising water by steel. All the parts are made to gauge, and in 1606, an apparatus for raising water by are interchangeable, thus facilitating repairs means of steam. He uses a separate boiler

The Myers Manufacturing Company, of Chicago, are introducing a new flue-hole cutter that possesses several very meritorious features, and which they have named the but have been in the triassic age, but how many thousands years ago is undeterminable.

Early History of the Steam Engine.*

We have now reached a point when light we have now reached a point when light begins to break in, feebly enough at first, upon the darkness of ages. Faint though it be, it is a sure indication of a dawning day. We note here and there indications of a true

THE "JEWEL" FLUE-HOLE CUTTER.

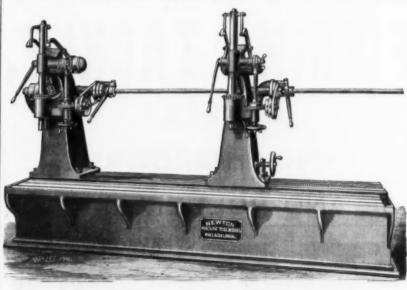
should any ever become necessary. Four makes use of the expansive force of steam

should any ever become necessary. Four regular sizes of the tool are made—2, 2½, 3 and 3½ inch. Two special liners are furnished with every tool for use under one of the cutters, in cases where flues or tubes run lumpy or irregular in size. As indicating the relative capacity of this tool, we are informed that in a prominent Western shop 95 2-inch holes were cut with this device in five hours, while with ordinary facilities in the same shop ten hours were consumed in cutting 86 holes.

Duplex Rod-Boring Machine.

Duplex Rod-Boring Machine.

We present in the accompanying cut a makes use of the expansive force of steam to force water up a pipe, and he even speaks of the production of a vacuum by the condensation of steam. Here, then, are some of the essential principles of the steam engine of to-day; yet I do not think it can be considered as in any true sense a step toward the steam engine, because there was no progress recognized in it, or necessarily involved in it. Its principles were not recognized as principles at all, and the apparatus was simply a combination of, at that time, known facts concerning steam, for a special purpose—just as was the case with the æolipile—and no more than in this latter case were its principles of action known. Suggestive, therefore, as this application might have We present in the accompanying cut a duplex rod-boring machine now being turned out by the Newton Machine Tool Works, 2341 Callowhill street, Philadelphia, Pa. The machine is specially designed for boring locomotive side-rods, made with bushed bearings, but may also be used where strapped brasses are required, boring both holes exactly parallel at one operation. One head, that shown at the left of the entrapying is stationary, while the other can graving, is stationary, while the other can be adjusted to suit the length of rod by a tangent screw, and exact centers can thus be obtained. The spindles are 3½ inches in diameter, are strongly back-geared, and are furnished with automatic feed and quick re-



DUPLEX ROD-BORING MACHINE.

turn. Two holes, 4 inches deep and 8½ rance and satisfy the inquiring mind. It is inches in diameter, have been bored on this machine in 40 minutes. The workmanship phrase than it is to frankly acknowledge our throughout is of the most thorough character

Volcanic Action in Pennsylvania.—
Prof. Henry Cawill Lewis recently gave an interesting lecture at Haverford College, on the volcanic formations of Chester County,
Pa. He said that there had been three handled it remains unfruitful, like all the hended it remains unfruitful, like all the discoveries and applications thus far Pa. He said that there had been tured epochs of volcanic action in Pennsylvania other discoveries and applications thus far similar to that which is now going on in noticed. No one builds upon it, it leads to Java. The roots of the old volcances are easily found in Chester County. The oldest easily found in Chester County. The oldest formation is at Buck Ridge, on the Pennsylvania Railroad, between Rosemont and Radnor and Spring Mill and West Chester, and in this section occur the igneous rocks, the very oldest in the country. In Rose's quarry is the base of an old volcano, the upper portion having been worn away by erosion or the influence of the atmosphere. the influence of the atmosphere. Three miles have thus been worn off through Chester County. Near Springfield, in the northern part of Chester County, there is a patch of an acre and a half of woods, in the center of which there is a large surface of rocks piled up in a very irregular manner. In the midpart of Chester County, there is a patch of an acre and a half of woods, in the center of which there is a large surface of rocks piled up in a very irregular manner. In the middle of the pile there is an opening, which is the shaft of an old volcano. It is oval and is 700 feet wide in its greatest diameter. Its depth has never been ascertained, it never

gnorance and earnestly interrogate nature. throughout is of the most thorough character, and reflects credit upon the builders of the tool.

Volcanic Action in Pennsylvania.—

Volcanic Action in Penn

no results, suggests no progress. Thus we find Salomon de Caus in 1615, only nine years later, publishing a work at Frankfort, in which he illustrates the proposition, to use his own words, that "water will, by the aid of fire, mount higher than its level," and describes a machine for thus raising water, the upper porby erosion or Three miles ough Chester the northern is a patch of the super course of the sup

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ACKNOWLEDGMENT AND AGREEMENT.

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NOW, This, is to Witness, that, in consideration of the forbearance of the presentatives of the said John Wilson to sue me for damages for the wrong present, I do hereby undertake and agree,

FIRST, to surrender and deliver to the Attorneys for the said John Wilson, all knives now on hand, and in my possession, or under my control, bearing the said imitation trade-mark, and

BECOND, I further undertake and agree to and with the said John Wilson, and his legal representatives, not to manufacture or sell, or cause to be manufactured or sold, at any time'in the future, Knives or other Cutlery, bearing his trade-mark aforesaid, or any imitation or simulation thereof. IN WITNESE WHEREOF. I have hereounto set my hand and seal at West Mansfield, aforesaid, this thirty-first day of May, 1883.

TNESS:—

WITNESS:

E. M. REED."
(Attorney for Defendant.)

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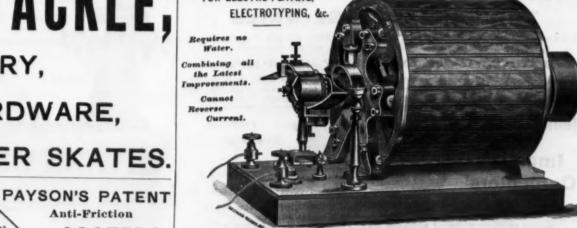
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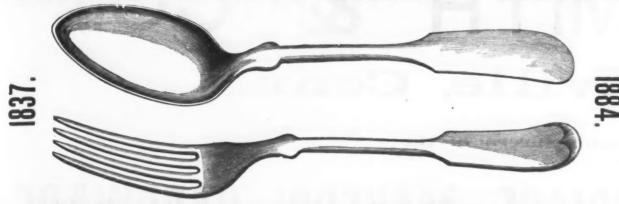
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He's in a cage, somehow or other, And sets the trap to catch another

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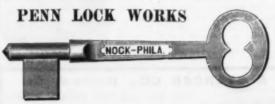
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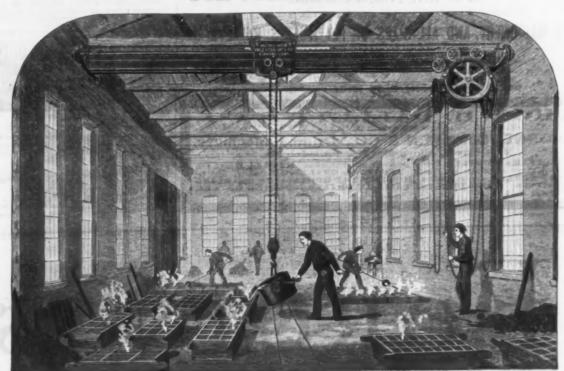


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THE YALE & TOWNE MANUF'G CO., Stamford, Conn. somewhat the dies.

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published a letter dated February 17, 1641, Finally, the edges of the plates may be comwhich purported to be written by Marion Delorme to the Marquis de Cinq-Mars, from which it appeared that De Caus was imprisoned by Richelieu in the madhouse of Bicetre material. on account of the folly of his ideas concerning the steam engine. The sympathy of the ing the steam engine. world was immediately enlisted on behalf of the "martyr," the "tyrant" met with unithe "martyr," the "tyrant" met with universal execration, and the ingratitude of the solution of water and saltpeter, powder or "great inventor's" own generation was since early deplored. It is to be regretted that the first tombstone which we thus encounter on our journey should bear a sham epitaph and tell a false tale. It is no pleasant task prompt ignition has been the main cause of to criticise an epitaph, or to rob the honored dead of every expressive less solutions. The failure heretofore of this prompt ignition has been the main cause of many accidents, inasmuch as miners were required to the control of th ored dead of even unmerited honors. But those remorseless investigators, the tendency of whose labors really seems scmetimes to cast a doubt upon our most cherished beliefs, and to render us sceptical even suitable material, saturated or coated with of the existence of such well-established national characters as John Smith and Pocahontas, whose researches respect no one's prejudices, and often incline us to believe, in our depair, that all so-called "history" is three-quarters pure fiction, and that the average human being can't tell the truth— even when he tries to—these plunderers of dead men's honors and live men's faith have only too well established the fact that the letter referred to was a newspaper canard, pure and simple: that so far from dying in letter referred to was a newspaper canard, pure and simple; that, so far from dying in madhouse at Bicetre in 1641, this was not a madhouse at all, but a military hospital; that the sympathy of a world has been wasted, and that our martyr turns out to be a very ordinary sort of man, after all, who lived an uneventful life, wrote an uneventful book and died an uneventful death. Upon such a basis rest the honors which a capricious fortune has showered upon the grave of De Caus. Our only satisfaction is to think, at least, that if he cannot lay claim to the inventor's crown of laurel, he has not by a current of superheated steam forced

lings of Inventions by Me Already Practised." In this work, which is written in the most obscure style, we find a description to be an apparatus for raising water by the expansive force of steam. The description is unaccompanied by any drawing, and it is more than doubtful whether any one besides the Marquis has ever understood it. As near as can be ascerever understood it. As near as can be ascertained, a boiler was used to generate steam, which was then admitted to a vessel partially filled with water. The steam forced this water out through a pipe. The vessel was then shut off from the boiler and the steam in it condensed. The presence of the the vacuum produced by the condensation. Steam was then again admitted, and so on. It is hard to find in all this anything new which had not been already made known by Porta or De Caus—upon which to base any just claim of the Marquis of Worcester to be regarded in any sense as the inventor of the steam engine. Indeed, as we have said, such an honor can be claimed by no single such an honor can be claimed by no single man, and all such attempts must, therefore, prove futile. The Marquis did, however, contribute notably to advance. While the contrivances of Porta and De Caus were hardly more than models or toys, it is established beyond doubt that the Marquis of Worcester was the first to construct an engine to do useful work. His apparatus was used for raising water at Vauxhall, London, and at Raglan Castle, his home. The openings in the wall are still to be seen The openings in the wall are still to be seen which were made for its reception.

(To be continued.)

New Inventions

A winding apparatus for mines has been patented by A. Lindenberg, of Dortmund, Germany. His improvement has for its object to prevent the weight of the counterbalance rope or chain from acting upon the winding rope. To this effect each end of the counter-balance rope is connected to a separate thin suspension rope that first passes over a guide-pulley and is thence con-nected to the opposite cage. In this way a portion of the weight of each cage is balanced by the opposite counter-balance rope, and as the cage is lowered the length and weight of such rope will be proportionately

A. W. Sangster, of Buffalo, N. Y. The two to be probably the tallest in the world. Its hinge-pieces are swiveled to a jointed plate hight from the foundation is 468 feet; above

at the proper angle. it a web where the parts of the die join. The cround, and that of St. Stephen's Church, in peculiar features of the upper and lower dies are that the division line upon which the parts separate does not follow the middle of the hammer. It follows the middle of the twisted out of the vertical line to the extent

apparatus is in all respects better worthy of and accumulators. A perforated mold of study, richer in suggestion, and, in compari- the size and pattern of the plate or block son, even a better indication of progress, of a real step in advance. It will, therefore, perhaps, surprise you to learn that to De Caus has been accorded the great credit of moved from the bath, so as to allow the caus has been accorded the great credit of being the inventor of the steam engine; liquid metal to drain through the perforated bottom. In the mold is then left a block of crystalline porous or spongy lead. This common consent of the public, and commemorated by poet, sculptor and painter.

The reason of this singular state of things is soon told. In the year 1834 a newspaper rublished a letter dated February 1. 164.

Finally, the edges of the plates may be compared to the plates.

Finally, the edges of the plates may be compared to the plates. the "forming" process of the plates. Finally, the edges of the plates may be com-

A miner's squib, intended to explode with greater certainty, has been invented by G. A. Ingram, of Plymouth, Pa. The paper shell or straw of the squib is immersed in a copal varnish and tallow and cut into various shapes and sizes.

grave of De Caus. Our only satisfaction is that the vapor is lorded under pressure into to think, at least, that if he cannot lay claim to the inventor's crown of laurel, he has not been forced to wear the martyr's crown of thorns.

Finally, the invention of the steam engine is claimed for Edward Somerset, second Marquis of Worcester. In 1663 he published a very curious work with a very curious work with a very curious title, "A Century of the Names and Scantlings of Inventions by Me Already Praclings of Inventions by Me Already Pracinto the mixing chamber, also under pressure into the mixing chamber, also under pressure. The particular form of the mixing chamber is immaterial as long as it is provided with a steam-supply pipe, a vapor-supply pipe, and a vapor-exit pipe. The steam and vapor will become thoroughly title, "A Century of the Names and Scantlings of Inventions by Me Already Pracmixed and produce a gas in which all the oil is vaporized. This gas is passed through the

The head of the clutch is mortised to receive the griping jaws. The end of the rod to be drawn is inserted between them, and the jaws are then forced along inclined seats on the head until the rod is tightened. The die was then shut off from the boiler and the steam in it condensed. The presence of the outside air thus forced up more water to fill the yacuum produced by the condensed to be seen to fill be yacuum produced by the condense to fill be recluded and place it in the exact position desired. The machine with a die of proper shape is adapted to cold-draw and compress solid or bollow recluded the produced by the condense to fill be recluded to the produced by the condense to fill be recluded to the produced by the condense to fill be recluded to the produced by the condense to fill be recluded to the produced by the condense to fill be recluded to the produced by the pro hollow rods or articles either round or square or of other shapes.

The Cambria Iron Company of Pennsylvania are the assignees of all the right in a novel apparatus for coating wire with metal. The apparatus contains a wiper consisting of coils of fine wire which removes the supercoils of line wire which removes the super-fluous metal from wire in the process of coat-ing. The wire to be coated is first passed through a bath of melted metal and is held down by a sinker. It then passes through the wiping coils and between bars, on the un-der sides of which the wiping coils impinge. Finally, the wire properly coated is wound

continuous lengths of wire are so bent that regular shapes may be produced by cutting the wire at fixed intervals. The end of the wire to be bent is first passed between the blocks of a tension device, then through a straightening device, and finally through an opening of a former to which it is secured. As the former is revolved and the wire is wound upon it, a hammer drops upon the flat sides of the former and flattens the wire. Before the hammer again descends the next succeeding corner of the former will strike made to conform to the shape of the former by a series of blows.

High Chimneys.

Speaking about large chimneys, a correscreased.

A hinge for trunks has been invented by hinge pieces are swiveled to a jointed plate which folds flat over the hinge when the latter is closed. When opened the jointed plate stands out diagonally to the hinge-pieces, and serves as a brace to hold the cover open. The jointed plate should be of ground, 7 bricks; at the top, 2½ bricks. Proper size to allow the cover to incline back at the proper size to allow the cover to incline back. which gradually contracts to 10 feet 4 inches An improvement in dies for forging ham-mers is patented by H. Hammond, of Hart-human structures in the world higher than ford, Conn. The object of the invention is this chimney, except the steeple of the Strasto finish the hammer without leaving upon burg Cathedral, which is 466 feet above the

the hammer. It follows the middle of the twisted out of the vertical line to the extent of 7 feet 9 inches, by a violent wind, before upward so that at the eye of the hammer the division is at the top. The joint between the two parts toward the ends of the hammer is freed and allows the metal to spread somewhat without forming a web between the dies.

The mortar was sawed out on the windward side, so as to allow the chimney to settle sufficiently to restore the perpendicular. Nearly 2,000,000 of bricks were used in the con-A patent has been granted to F. T. Williams and J. C. Howell, of Llanelly, England, for the manufacture of spongy lead, to be used principally for secondary batteries | Church, in New York, and 90 feet higher

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Haws also all mer Ha Patente . 45

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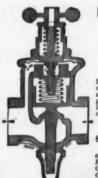
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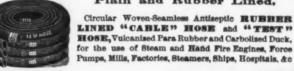
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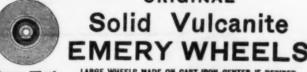
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base is 40 feet, or equal to the space occupied by a large-sized house, and it gradually contracts to 11 feet at the top.

Overhead Tramrails.

Many manufacturers are beginning to ap preciate that they are sadly lacking in appliances for handling their material raw, finished and in process. Any device, therefore, which tends to greater economy in handling loads is a matter of general interest. We illustrate herewith a system of tramrails which for many situations is of great serrice. The general advantages of an over-need tramrail are that it is entirely out of the way; that by means of curves, switches and turn-table it can be made to reach any desired part of a building or yard; that its desired part of a building or yard; that its first cost is moderate; that it is perfectly simple, and that it performs the duties of more expensive appliances. The tramrail illustrated is that which has been developed and patented by the Yale & Towne Manufacturing Company, of Stamford, Conn. It consists of I-beams which are bolted to It consists of I-beams which are bolted to supports overhead by means of hanger bolts passing through the top flange and into the web of the beam. Running on the lower flange is a four-wheeled trolley, which is also patented, and the axles of which are parallel to the upper side of the lower flange of the beam. This parallelism insures the easy running of the trolley, as friction is very much diminished. The novel form of hanging also enables the wheels of the trolley to be as large as the depth of the I-beam will permit, and this also further diminishes. will permit, and this also further diminishes

than the cross on the top of St. Paul's, in ness, and is used for all the purposes of the London. The breadth of this chimney at its trade, excelling all other kinds as a lubri-

The properties of graphite make it useful for the following general purposes in the arts: The manufacture of refractory articles, lubricants, electrical supplies, pigments and pencil leads. The proportionate amounts of graphite used for different purposes is stated as follows: Crucible and re-fractory articles, as stoppers and nozzles, crucibles, &c., 35 per cent.; stove-polish, 32 per cent.; lubricating graphite, 10 per cent.; per cent.; lubricating graphite, 10 per cent.; foundry facings, &c., 8 per cent.; graphite grease (for which only American is used), 6 per cent.; pencil leads (only American and German), 3 per cent., the balance (6 per cent.) being used for graphite packing, polishing shot and powder, paint, electrotyping, piano action, photographers', gilders' and hatters' use, electrical supplies, &c. The earliest use of graphite was for pencil

The earliest use of graphite was for pencil leads, for which it was first used in 1387. Its use for this purpose has become so extended that in 1882 over 150,000,000 pencils were made in the world. Previous to 1827 black-lead crucibles were made only in Germany. In that year the late Joseph Dixon, the founder of the Joseph Dixon Crucible Company, began their manufacture. Graphthe purity, which was then only approx-mimate, is now absolute.



OVERHEAD TRAMRAIL OF THE YALE AND TOWNE MFG. CO., STAMFORD, CONN.

friction. The track in the illustration is used for transfering grindstones in a grinding-room, but, as will be readily seen, may be applied to any use, either inside or outside of the shop. The track may be either hung from girders, as in the illustration, or from brackets against the wall, or from an independent trestle. The Yale & Towne Manufacturing Company have erected many Manufacturing Company have erected many constants. The growth of the graphite industry nas kept pace with the age, each new development in metallurgy and engineering offering some new field of usefulness for graphite. For instance, it furnishes the pots for the manufacture of cast steel, and the nozzle, and stoppers used in the Bessemer process. Fifty years ago graphite was little known, and misnamed. Now it is of constantly in-Manufacturing Company have erected many miles of this track, and it has given the greatest satisfaction. Attached to the trolleys are Weston differential blocks, by which the load is hoisted and automatically held suspended at any point, so that when the operator has raised the load he merely has to let go the chain and push or pull the load to any desired position.

Graphite or Black-Lead.

The chapter in "The Mineral Resources of the United States," published by the United States Geological Survey, Department of In-States Geological Survey, Department of Industrial Statistics, is one of considerable interest. The only place in the United States where graphite is now mined successfully is at Ticonderoga, N. Y. This property, owned originally by the American Graphite Company, now belongs to the Joseph Dixon Crucible Company, of Jersey City, N. J.

Mr. Lammot Dupont, who was killed recently by the explosion at Thompson's Point, is said to have been worth \$12,000,000. He The American Graphite Company worked the vein deposits to a depth of 600 feet. The Dixon Company now mine a graphite schist, 15 feet thick, carrying from 8 to 15 per cent. of graphite, practically an inexhaustible supply. Numerous attempts have been made to work the similar deposits of Penn-

The growth of the graphite industry has kept pace with the age, each new development in metallurgy and engineering offering some new field of usefulness for graphite. creasing importance. From an insignificant beginning in the present century, the industry has grown to its present proportions. There are now some 25 establishments engaged in the manufacture of a great variety of goods from this material, employing in the aggregate over 1500 hands. Of these, three, employing 725 hands, are engaged in the manufacture of lead pencils exclusively. One, the Joseph Dixon Crucible Company, employing 500 hands, manufactures pencils and everything else for which graphite is used; six establishments, employing 104 hands; are manufacturing only crucibles; nine establishments, employing 115 hands, manufacture stove-polish. The remainder

is said to have been worth \$13,000,000. He had a controlling interest in the manufac-ture of nearly all the high explosives that were made in the United States and Canada east of the Rocky Mountains. Ten million pounds of these materials were consumed in the country in 1882, the Repauno Company's works at Thompson's Point producing onemade to work the similar deposits of Pennsylvania and New Jersey, with only partial success. The parties interested in these attempts are: The Pennsylvania Plumbago Company, the Eagle Plumbago Company, all of which have worked deposits in the Pickering Valley, Pa. Other deposits have been worked in Northern New Jersey, and others exist in Georgia and California.

The 1882 the country in 1882, the Repauno Company's works at Thompson's Point producing one-third of this amount. He is credited with having organized a combination of all the makers of high explosives. When negotiating with the Panama Canal Company for the powder to be used in that work, he guaranteed to supply 12 tons of Atlas powder daily if that amount were needed. One of the most daring achievements recorded in the history of the present century is one of JANOE - GRONGE.

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In 1882 the output of the Ticonderoga and California.

In 1882 the output of the Ticonderoga and was especially a count. The outputs of all the other mines during the same year are stated at 25,000 pounds. The Dixon Company will produce 500,000 pounds in 1883, while the product of all other mines will probably not exceed 25,000, making a total output for 1883 of 525,000 pounds. The Dixon Company will probably not exceed 25,000, making a total output for 1883 of 525,000 pounds, having a spot value of 8 cents per pound, or a total value of \$12,000. Graphite is commercially known as German black-lead, is a product of Bavaria, and its price depends on its percentage of graphite and the nature of its impurities, ranging from \$1 to \$10 or cwt. in cargo lots, and is used for all the manufacture of peacing, stove-polish and foundative facings. Question and the manufacture of peacings of the trade except for making benefit leads, for which it is not adapted. American graphite ranges in price from \$2 to \$10 per cwt. in cargo lots, and is used for all the country and fine-ticked in Northern New Jercended in Nor

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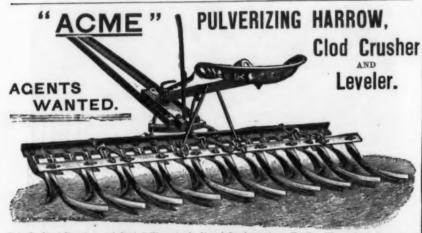
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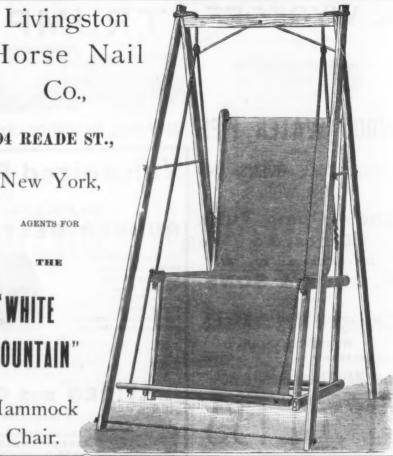
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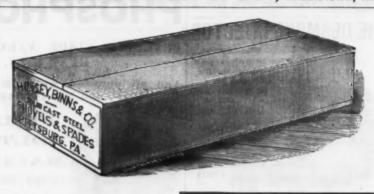
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paid the sum of \$3,000,000. Throughout the civil war the family rendered distin-guished services to the Government, and at the very beginning of the Rebellion Mr. Lammot Dupont was placed in a position by which, through his energy and genius, the country was supplied with the means of defense for the ensuing conflict.

Shop Fittings and Fixtures.

Adaptations to the work in a shop are not always considered in the building of the premises or in the fittings up. For the reception of machinery, whether of tools in the shop or of machines in a manufactory, the floors should be of the most stable and immovable character, and conveniences should be a part of the plan. It is best, if the designer can begin from the beginning, to make an exact scale plan of each floor and the position of each machine. In some cases even the belt-holes through the floors can be sufficiently designated to prevent the unnecessary introduction of flooring beams and cross-braces. If the building is too far advanced, or the arrangements are to be made in a building once used, still a plot or plan of the building once used. plan of the building, or its floors, is an advantage to the millwright, and it should be made on a scale so that it could be studied quietly, rather than make a necessity of location of each machine and every belt-hole on the floor itself.

Such a scale plan, says an exchange, is invaluable to the man who has to "start an establishment." It is a wonderful help to the millwright to be allowed to look at the unfinished floors and suggest changes. If he is a competent man he can save more than his salary by being on hand during the lay-ing of the floors. At the outset the compethe outset the competent millwright can save to the builders of a mill or shop many dollars for each day's work. A clean-laid floor in a building to be "rented with power" is frequently pointed out by the landlord or his agent as an inducement for hiring for occupancy; and yet portions of that handsome floor may have to be chiseled out and marred to suit the machinery that is to come in. It is better that

chinery that is to come in. It is better that the owners of the buildings for the reception of machinery satisfy themselves with a temporary floor while exhibiting their premises. No shop that builds machinery of parts heavier than two men can easily lift should be without an overhead railway sufficient in its course and its switches to cover with its reaching lifts the entire area of the shop, or of that portion occupied by the heavy tools. With a few fixed cranes of the retractible jib type, the shop would be completely fitted for handling heavy pieces, and the abominable floor-truck could be pitched out of doors. One of these cranes, made wholly of iron, with a carrying capacity of 4 tons, and a jib that extends 14 feet, and when retracted can swing in a circle of 6 feet radius, will occupy but little room, the mast being only a few inches diameter.

But one of the most experial leaks in the

mast being only a few inches diameter.
But one of the most general lacks in the machine-shops is a fitting-up room for machiner. In gun-shops and sewing-machine factories, and in establishments for the production of other light articles, there is al-ways an assembling-room where the parts are combined into the completed whole.

Engineers' Club of Philadelphia.

At the April meeting of the Engineers' Club of Philadelphia Mr. Henry G. Morris exhibited, on behalf of Mr. Israel W. Morris, two ancient and curious works upon mining

"The Golden Treasury, or the Complete
Minor; being Royal Institutions or Proposals
for Articles to Establish and Confirm Laws. Liberties and Customs of Silver and Gold Mines," by Thom. Houghton, London, 1699, and "A Collection of Scarce and Valuable and "A Collection of Scarce and Valuable Treatises upon Metals, Mines and Minerals," by James Hodges, London, 1740. The latter contains, inter alia, "How to Know the Condition of the Earth by Taste;" "Of Juices, and First of Allum;" "The Opinion that Quicksilver and Sulphur are the Matter Whereof Metals are Made is Defined;" "How to Know the Ill Qualities that Infect the Oar, and How to Purge Them Away;" "Wherein is Showed How True and Perfect Gold May be Made by Art, with Loss to the Mr. Henry G. Morris gave a brief descrip-

tion of an atmospheric elevator, consisting JUNIOR AND SENIOR
of a closed cage or car working in an airtight well, the air pressure—supplied by a "Root" or other pressure blower—being admitted to the top or bottom of the cage in admitted to the top or bottom of the cage in descending or ascending. The doors at the different stories opening inward, the pressure of air keeps them closed until the interior of the car is brought opposite, when, the pressure being relieved, the door can be opened into the car. The car being counterbalanced, only a comparatively slight pressure that the car is the car balanced, only a comparatively slight pressure of air, equal to a water column of 6 to 8 inches only, is required to move an average load on a car 6 feet square. The escape of air beneath the car being at all times readily controlled by the attendant, it is impossible for the car to descend at a dangerous speed, and other obvious features render this form of elevator comparatively safe. Mr. Henry G Morris also exhibited a sample of seamless copper tube which had been compressed endwise under a steam hammer, and showed peculiar foldings of the metal into overlapping equilateral triangles, forming an in-terior hexagonal section. The absence of

fractures showed great purity of material.

Mr. John T. Boyd described a new design for parlor cars for the Pennsylvania Rail-road. The secretary presented, for Mr. Ed-ward Parrish, an illustrated description of Powers's disinfecting tank and automatic

The 1st inst. was characterized by quite a forests, is borne to the cities, tens, and some-number of labor troubles, though none of times hundreds, of miles away on the backs them were specially serious. The district

convention of miners, at New Straitsville, Ohio, refused to consider a proposition from the operators for a reduction of 10 cents. Five hundred track-layers and laborers on the Ontario and Quebec Railroad struck for higher wages. Four hundred Italian laborhigher wages. Four hundred Italian laborers employed by the Pennsylvania Schuylkill Valley Railroad, at Reading, struck for \$1.35 per day, an advance of 10 cents; they were paid off and discharged. In Buffalo 20 laborers at the Lake Erie freight-house, over 50 handlers in the Central freight-house and 30 handlers at the Lake Shore freight depot, struck for higher wages. Their places filled by Italians and non-union men.

The Brown-Bonnell Iron Company.

The following is the scheme for the reor-The following is the scheme for the reorganization of Brown, Bonnell & Co.'s affairs, which was approved at a meeting of the creditors at Youngstown, Ohio, on the 29th ult., and seems reasonably certain of being adapted by all of them. adopted by all of them:

Organize a new company, to be called the Brown-Bonnell Iron Company, with a capital stock of \$1,200,000, for the purpose of the purchase and operation of the works and property of Brown, Bonnell & Co.

2. The stockholders in Cleveland of Brown,

Bonnell & Co. who hold claims secured by mortgage to take all their said claims in the stock of the new company-about \$162,500. 3. All other creditors who are willing to do so to take 60 per cent. of their claims in

stock, and the remaining 40 per cent. to be paid as follows: 10 per cent of valuation of paid as follows: 10 per cent of valuation of claim in cash on purchase of property by new company; 10 per cent. of valuation, one year after date at 6 per cent. interest; 25 per cent. two years after date at 6 per cent.; 25 per cent, three years after date at 6 per cent.; 30 per cent, four years after date at 6 per cent. date at 6 per cent.

4. Above-named notes to be paid ratably by the company earlier than by their terms they are due if in the judgment of the directors this can be done without prejudice to the credit or business of the company, and in no event are dividends to be paid to stockholders until all said notes are paid.

stockholders until all said notes are paid.

5. Two hundred thousand dollars to be paid by D. P. Eells, W. H. Harris, C. A. Otis, S. Mather and J. Hay, payable 25 per cent. when required for purposes named in Article 6, 25 per cent. in four months, 25 per cent. in eight months, and 25 per cent. in twelve months, with interest on all deferred payments at 6 per cent. from date of purchase of the property, for which they are to receive stock in the new company at same receive stock in the new company at same rate as creditors named above.

6. Creditors who prefer shall be paid 50 per cent. of their claims in cash in full upon the assignment of their claims for the benefit

of the company.
7. All claims against Brown, Bonnell & Co. acquired by the new company, as above, to be assigned without cancellation to the to be assigned without cancellation to the new company, without prejudice to any right of recovery which may attach to such claims against stockholders of Brown, Bonnell & Co., on their personal liability as such stockholders, and without prejudice to any other legal rights. But the stockholders of Brown, Bonnell & Co. who pay in the \$200,000 to the company, and those to whom they have conveyed their stock, including \$200,000 to the company, and those to whom they have conveyed their stock, including H. P. Eells, P. E. Newberry, E. A. Witt and D. P. Eells et al., trustees, to be indemnified and held harmless by said new company, in consideration of the payment by them of said \$200,000 and of their taking stock for the amount of their claims, which are second by the backer of the pretrying bonds. the amount of their claims, which are secured by the p'edge of the maturing bonds of said company, the entire amount of the stock of Brown, Bonnell & Co., the holders of which are hereby agreed to be indemnified against their liability of said stockholders, being \$300,000.

8. Seventy-five per cent. of the indebtedness of Brown, Bonnell & Co. to be secured as assenting to this proposition before it shall become binding. Interest at 6 per cent. on

become binding. Interest at 6 per cent, on all claims from date of maturity to the ma-turity of the claim, last maturity to be allowed and no interest on any claim after that time.

Any creditor shall have the right to take the whole amount of his claim in stock.

Trade at St. Louis,-Notwithstanding the many complaints which have been made by local manufacturers and merchants about by local manufacturers and merchants about the depressed condition of trade, especially during the first quarter of the year, says the Age of Steel, the receipts of eight leading articles of commerce in this market, viz., iron ore, zinc ore, pig iron, nails, pig lead, tin, coal and coke, compare very favorably with those of former years. We this connection the receipts of the We present in for the first quarter of each of the three years indicated below.

years indicated belov	W i		
	-Fi	rst quarter	
	1882.	1883.	1884.
Iron ore, tons	29,432	12,784	61,046
Zinc ore, tons	6,712	8,719	4,589
Pig iron, tons	23,121	21,839	23,117
Nails, kegs		110,037	142,493
Lead, pigs	281,213	259,876	254,096
Tin, boxes	11,612	20,695	28,523
Coal, tons	426,355	435,298	492,384
Coke, tons	77,276	14,480	22,287

The Two Republics, the only English daily in Mexico, recently announced the development of an enterprise that may have some influence on the future of Mexico. This is the purchase of 200,000 acres of alleged coal lands in the northern State of Coahuila by a strong syndicate composed of Huntington, Crocker and others. The mines are within 10 or 12 miles of the line where the International road is laid out, and but little further from the National road which is finished past that point, and which, if the find should prove valuable, will no doubt run a branch up for their accommodation. The develop-ment of a mine of good coal would be of great value, for while Mexico is traversed by immense forests, stretching from Guate-mala to the Rio Grande, and bearing in great syphon. The secretary presented, for the reference book, a table which he had prepared of vulgar fractions of I inch reduced to exact decimals of I inch. Mr. William L. Simpson exhibited a remarkably perfect casting of a toad, the pattern used being the times the almost universal fuel of Mexico has been charcoal, which, produced in the great

The Iron Age

Metallurgical Review.

New York, Thursday, May 8, 1884.

Publisher and Proprieto DAVID WILLIAMS. JAMES C. BAYLES. JOHN S. KING, Editor. Business Manager.

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The Labor Situation West.

A very important meeting of the Manufacturers' Association, which was formed during the strike of 1882 and brought it to a successful conclusion, was held in Pitts-burgh last Thursday. According to the reports that were given out of the meeting, it was one of the most largely attended that has been held since the inauguration of the strike of 1882. The manufacturers were exceedingly chary of information concerning the result, but they have authorized the statement that a resolution was passed indorsing the action of the Committee of Conference in refusing the demands of the Amalgamated Association, and in asking for a reduction of 10 per cent. on the present d also that the had agreed to insist upon these demands. even to the extent of a stoppage. The manufacturers and workingmen are thus brought face to face with the possibility of another stoppage of work in the West, with all that it implies of suffering and debt on the part of the workingmen, and of loss of trade to the manufacturers. It would seem that a careful review of the situation in the presence of unquestioned facts should lead the workingmen of the West to concede the small reduction that is asked by the manufacturers. Certainly since the selling price reached 21/2-cent card, which is the minimum rate of the wages scale, there has been such a reduction in the selling price of product as to justify the demand for a 10 per cent. reduction in wages. The workingingmen have conceded reductions in other industries, which are pressing the iron trade severely, whose product is competing with iron, and will force it out of the market or compel a reduction in the cost of production. The manufacturers in the eastern part of the Western territory, who send their iron both East and West, are obliged to compete in the Eastern market with iron made at wages that were not only in the normal state of the market below those paid in the West, but with wages that have been considerably reduced since any reduction has been conceded in the West.

workingmen seem to concede, but, according to the statements in the Pittsburgh papers, their answer to them is that any reduction | not of boasting. The year 1879, however, brought

in wages would not benefit the manufacturers, as it would be immediately given away. This is no doubt true. Some business men seem to be so constituted that immediately upon receiving any concession which will enable them to produce cheaper, instead of taking that benefit to themselves, they give it to the consumer. If freight is reduced 50 cents a ton, they will reduce their price 60 cents; if coal mining is reduced 1/4 cent a bushel, the price of coal will be reduced fully that sum; and we have no doubt that if the price of labor was reduced in the iron mills there would be somewhat of a reduction in the price of iron at some mills: but if such reduction is made, it will be made to enable the manufacturers in certain sections to compete with those in other sections who, by reason of lower labor or less freight, have the advantage. The argument of the workingmen and their reasons for refusing a reduction would be ound were all the manufacturers of the ountry on an equality; then a reduction in wages, perhaps, might be uncalled for. But when no such equality exists, when there are inequalities growing out of the financial condition of the rolling-mill manufacturers, growing out of their location, growing out of their facilities for turning out work, and of wages, then the argument is a fallacy.

Statistics of American Iron and Steel Production in 1883.

We are in receipt of advance sheets of the annual report of Mr. James M. Swank, secretary of the American Iron and Steel Association, containing the statistics of the production of iron and steel in the United States in 1883, as compared with preceding years. From the tables contained in the pages of this exceedingly valuable annual we have compiled the following comprehensive summary of the quantity of the various kinds of iron and steel produced in 1883, as compared with 1882:

Bituminous pig iron		Net tons. 2,488,078 2,042,138 697,906
Total pig iron	5,146,978	5,178,122
Spiegeleisen (included above).	24,574	21,963
Bessemer steel rails Iron rails Open-hearth steel rails		1,488,155 227,874 22,765
Total rails	1,860,694	1,686,794
Bessemer steel rails rolled in iron rolling mills (included above)	82,629 19,440	103,806 22,286
Bessemer steel ingots Crucible steel ingots Open-hearth steel ingots Blister and puddled steel	1,654,697 80,455 188,679 5,598	1,696,450 85,089 160,542 3,014
Total steel of all kinds	1,874,359	1,945,095
Cut nails, kegs	7,762,787 888,136	6,147,097 807,854
Plate and sheet iron, except nail plate	384,362 1,511,422	412,814 1,545,788
Total rolled iron, including nail plate and iron rails.	2,348,874	2,493,881
Iron blooms and billets from ore Iron blooms from pig and	85,987	48,854
scrap	39,521	42,989
Total iron blooms	74,758	91,298
A strader of Alain Andria and	23	

A study of this table will convey a very clear idea of the extent and variety of our domestic iron and steel industry, as well as the changes which have been made in production in the past two years. It will be seen that, generally speaking, the year 1883, though a year of declining prices and unsatisfactory business, witnessed but a slightly decreased output as compared with 1882, when the condition of trade was much more cheerful. In some branches, indeed, there was an increased production in the later period. More bituminous pig iron, more spiegeleisen, more blister and puddled steel and more cut nails were turned out in 1883 than in 1882. The decline in the pro duction of anthracite pig iron, occurring contemporaneously with the increase in the output of bituminous pig iron, causes Mr. Swank to remark as follows:

The only noteworthy exception to the general adjustment of prices on a lower plane was fur-nished by the anthracite coal producers, who scarcely recognized the decline that had taken place in the prices of pig iron. If the policy of maintaining high prices for anthracite coal is in-sisted upon, the production of anthracite pig iron must steadily decline. As our statistics will show, it experienced a serious decline in 1883, wherea the production of bituminous pig iron increased in the same year. With the exception mentioned, the decline in prices was equitable and compensa-tory; the inevitable shrinkage was evenly borne by all branches.

In considering the future of the American iron and steel industries, Mr. Swank points out a number of facts which favor a hopeful view of the years to come, but discusses at length a matter which must be taken into serious consideration, as follows:

The events of the last few years have dispelled he illusion from the minds of all but the most houghtless that these industries or any other American industries can be indefinitely developed. There is a limit beyond which all attempts to force the development of mechanical or agricultural industries must be attended with serious loss. A country can consume and pay for just so much and no more of any product, and any surplus of that product that it may have for the supply of other countries can be disposed of, if disposed of at ali, only in conformity with the same law. European countries are compelled to bend to the requirements of this law, and this country can form no exception to it. In times past we have been too prone to believe that our industrial opportunities were boundless, and that our industrial activity These are facts the force of which the could, therefore, never be too pronounced or aggressive. The panic of 1873 suddenly challenged the correctness of this impression, and the years which immediately followed were years of humility, and omnipotence. We had at last an abundance of

omnipotence. We had at last an abundance of good money; why should there not be unlimited activity and unlimited prosperity?

The bounding prosperity which 1879 ushered in lasted only until 1882, since the beginning of which year the country has been gradually settling down to the industrial position it now occupies, which is midway between great exaltation and great depression, and which, joined to our experience under the panic of 1873, must virtually end the illusion that this country cannot produce too much illusion that this country cannot produce too much of any commodity. With this illusion dispelled; with capital taught that it need not make what the people cannot buy; with would-be farmers taught that we can produce more wheat than we can sell; with immigration narrowed to reasonable bounds because labor in this country is already in excess of the demand for it; with our mechanical indus-tries so fully developed and so skilfully managed that competition will be certain and endless, it may reasonably be expected that excited markets and inflated prices will be things of the past, while low prices will help to hold in check the evil of overproduction. Steadiness in demand and supply is what the country needs, and what it has conspicuously lacked in recent years. This means a slower growth than accompanies periods of industrial ex itement, but a slow growth is a healthy growth.

There is much more in this annual report which is worthy of republication and comment, but want of space forbids more extended reference to it. We will merely add that the value of Mr. Swank's statistical work grows with every year, his latest effort especially when there are inequalities in rates in this line surpassing in completeness and comprehensiveness any of his previous achievements.

Sailing Under False Colors.

The following news item, which appeared in the city journals last Friday, naturally attracted some attention:

A circular has been issued, signed by 18 New York firms, calling a special meeting of manufac-turers at the Windsor Hotel for next Thursday at 8 p. m. Their co-operation is asked to secure "the abolition of all duties on raw materials" and "the adjustment of the tariff so that manufactures approaching nearest the crude state will pay the lower rate, and manufactures that have further advanced will pay the higher rate of duties." The object of the meeting is to bring pressure to bear upon Congress to attain these ends.

From the phraseology of the notice the inference seemed warranted that the manufacturers of this locality were about to take an active part in the "tariff reform" movement. It looked more particularly as though producers of saleable articles from crude materials were growing restive under the imposition of duties upon the ores, &c., which form the basis of their manufacturing operations. In seeking more light upon the subject we secured a copy of the circular itself, and herewith reproduce it in full:

NEW YORK, APRIL 24, 1884. DEAR SIR: You are invited to attend a special meeting of manufacturers to be held at the Wind-sor Hotel, May 8th, at 8 p. m., in the interest of such measures of tariff reform as seem essential to the more rapid progress of manufacturing indus-tries in this country. The objects for which your co-operation is solicited are:

co-operation is solicited are:

First.—The abolition of all duties on raw materials, such as wood, fron and other ores, coal, jute, hemp, flax, dye-stuffs, &c., in order that we may compete in home and foreign markets with other manufacturing nations, not one of which taxes

Second .- The adjustment of the tariff so that manufactures approaching nearest the crude state will pay the lower rate, and manufactures that have further advanced, requiring more skill and labor, will pay the higher rates of duties.

The attainment of these objects would cheapen the cost of many of the necessaries of life, relieve our home markets from the burdens of overpro-duction, increase the demand for labor, enlarge our commerce, besides placing-our manufacturing industries on a solid, self-sustaining basis. It is important to bring this forcibly before Congress, especially as the opinion has gained currency there that the manufacturers of the country are indifferent upon the question of free raw materials. Please sign the inclosed postal card and mail it to its address. No assessment will be made. Respectfully yours, FRANK O. HERRING, of Herring & Co.

R. H. Wolff, of R. H. Wolff & Co., Limited.
UNITED STATES STAMPING Co.
ALEXANDER E. KURSHEEDT, of Kursheedt Mfg. Co. MEYER JONASSON & CO. WEED & BECKER MFG. Co. MARVIN SAFE Co. J. B. Brown, President N. Y. Plow Co.

S. C. HOWARD, of Howard & Son WILLIAM DEAN, of Dean Woolen Co. GEO. H. PUTNAM, of G. B. Putnam's Sons.

JAMES M. CONSTABLE, of Arnold, Constable & Co J. Schoenhof, of Adler & School

An examination of the city directory dis closes the fact that the first firm named man ufacture safes. It will hardly be claimed that safes are made of "raw material." The second firm manufacture wire from imported wire rods, which are very far removed from the state of nature in which iron is found. The third name is that of a manufacturer of tinware made, of course from imported tin plate. The fourth is a manufacturer of trimmings for ladies' dresses, &c. The fifth make cloaks. The sixth is that of a tool-manufacturing company. The seventh that of a safe-manufac turing company. The eighth, a manufac-turer of plows. The firm occupying the ninth place in the list does not appear in the city directory, but S. C. Howard's name is given as a dealer in jewelry. Nor does the tenth name appear in the city directory, though we naturally infer that a woolen company weaves some sort of fabric from wool, which is affirmed to be a raw material by the consumers of it, and very far from a raw material by the growers. The eleventh owners of steamship stock (who are found name is that of a prominent publishing all through the United Kingdom among goods firm, and the last-named firm manufacture ladies' skirts.

A movement in favor of free raw ma-

of merchants or importers. The closing statement in the circular is therefore very cool-namely, that it is important to bring this question forcibly before Congress, as the opinion has gained currency there that the manufacturers of the country are indifferent upon the question of free raw materials.

It will be observed that the circular has upon it no address, being merely dated New York. An accompanying postal card bears the printed address of J. Schoenhof, Chairman Merchants' and Manufacturers' Committee, 30 Nassau street, and on the reverse side appears this statement, to be signed and returned to Mr. Schoenhof :

I agree with the purposes expressed in the circular calling a meeting of manufacturers to the Windsor Hotel for May 8, and shall endeavor to be

It may be remarked that No. 39 Nassau street is also the address of the New York Free Trade League, and that the circular is ssued from their office.

Important Legal Decisions Affecting Labor.

A case in connection with mine labor ha ecently been decided in the courts of Mer cer County, Pa., which has involved two points of considerable importance. One is What constitutes a notice to quit? and the other the interpretation of an act of Assembly requiring pay for mining all sizes of merchantable coal. The miners had been working under an article of agreement by which they were to give 30 days' notice before quitting, the company to give similar notice of a reduction, and to retain 10 per cent. of the wages of the miners, payable at the end of the year, or at the next pay day after discharge or voluntary retirement. The company gave 30 days' notice of a reduction, and at the expiration of the time the miners quit. The 10 per cent. retained was refused them on the ground that they had given no notice, and also because they retained the houses of the company occupied by them after they had stopped work, which was contrary to the article of agreement. The Judge instructed that the notice to the miners of a reduction at the end of 30 days was in effect a notice of discharge. The men, having received that notice, were not under any obligations to give the company notice that they would quit at the expiration of the term. The Judge also held that the miners were entitled to demand the 10 per cent. back pay.

A more important question than this, however, was brought up in connection with the suit of the miners to recover for nut coal under the act of Assembly which requires coal operators to pay "for the mining of all "sizes of merchantable coal so mined by him, whether the same shall exist in the form of nut or lump coal," unless a contract to the contrary has been made. court held that as lump was the only coal paid for by the well-understood custom of the mine, and the miners having shown by their monthly receipts that they fully understood this, the contract was "implied," and as strong as though written and signed, and there could be no recovery. If a miner had made a contract to work at a certain amount per ton, and at the end of the month were "I did not understand this matter, and I will not take the pay except for lump and nut coal," he could then demand it and recover it; but if he goes on and receives the pay at the agreed rate per ton for lump coal only, knowing that he is being

Ocean Transportation.

Dolorous accounts continue to be received from all parties concerned in ocean steam navigation. Instead of profits, most of the steamers in the Transatlantic trade report a heavy deficit. True, the prospects of a remunerative pleasure travel the coming seaon afford a cheering ray, as all the fleetest steamers are likely to run full, and it is thought probable that a large immigration may be stimulated by the unprecedentedly low current charges; but, the "North Atlantic Conference" having been dissolved, there remains no power to enforce measures for mutual protection, so that a ruinous war of rates may follow. As for freights, it is no torious that in some instances it is cheaper to carry ballast than to accept the prices now offered by shippers-a state of things due in a large measure to the folly of grain speculators, who have succeeded in forcing prices above the parity of European markets. The The twelfth, that of a leading dry- those who have saved anything from

another period of industrial excitement, and with it a partial revival of the old belief in our industrial of merchants or importers. The closing aggregate of 3.725,220 tons. which is aggregate of 3,725,229 tons, which is an increase of 500,000 tons in a twelvemonth. The latest proposition under discussion, viz., the withdrawal of one-fourth of the available tonnage, is found to be impracticable, but some other measure of relief may be devised equal to the emergency. It will be strange, indeed, if American shippers are unable to market our staples profitably under conditions so favorable to cheap transportation.

Imports of Metals at New York in April.

The imports of iron and steel at the port of New York were comparatively heavy during the month of April. According to the Custom House returns, as classified by the secretary of the Metal Exchange, the total quantity of iron and steel imported here in April was 42,003 tons, against 35,061 tons in April, 1883, and 32,122 tons in March of this year. The increase was in pig iron, spiegeleisen, steel blooms, steel rails and iron wire rods. The following table shows the details of the imports in each month mentioned:

Metals.	April, 1884. Tons.	April, 1883. Tons.	Mar., 1884. Tons.
Pig iron	10,609	5,905	7,988
SpiegeleisenOld rails	5,200	4,812	4,149
Scrap iron	450	1,655	791
Scrap steel	650	1,844	94
Steef blooms	1,198		767
Steel rails	4,328	1,559	1,659
Steel wire rods	7,342	9,691	4,171
Iron wire rods	2,107	498	1,979
Swedish iron	630 116	839 43	876
Iron beams	62	269	84
Hoop iron		144	
Sheet iron	241	214	247
Steel bundles, bars, &c,	580	382	466
Steel tires and forgings	146	353	145
Total	83,681	26,566	28,854
Fin plates	8,872	8,495	8,268
Grand total	42,008	35,061	82,122

The miscellaneous metal imports in the ame months were as follows:

	April, 1884.	April, 1888.	March. 1884.
Iron ore, tons	3,239	5,055	1,700
Slab and ingot tin, tons	606	1,887	402
Copper (old), pounds	3,686	5,518	8,051
Brass (old), "	2,290	29,120	1,707
Pig lead, tons	858	255	65
Spelter, tons	83	168	
Sheet zinc, tons	56	64	84
Scrap zine "		18	12
Reg. antimony, cks	296	207	879
Nickel alloy, pounds	22,210		25,460

The following table shows the stocks of iron and steel in the United States bonded warehouses at this port at the beginning of the year, on the 1st of April and on the 1st

	Jan. 1, 1884. Tons.	April 1, 1884. Tons.	May 1, 1884. Tons.
Pig iron	2,506	2,971	3,164
Spiegeleisen	1,422	698	664
Old rails	1,185	1,185	1,135
Scrap iron	1,177	784	476
Scrap steel	806	806	806
Steel rails	121	128 1	128
New iron rails	58	43	4.2
Steel wire rods	5,666	4,591	4,044
Iron wire rods	546	565	565
Swedish iron	2,649	1,997	1,726
Sheet iron	49	42	42
Russia sheet iron	78	68	68
Steel bundles, bars, &c		155	183

The Italians have in recent years been rapidly supplanting the Irish as railroad laborers. The prime cause has been their willingness to work for lower wages than their Irish competitors. As they become more acquainted with the ways of the country, however, they are not slow to comprehend the possibilities of the labor situation, paid in that way, then he cannot afterward back out of it and say, "I will go back on nity offers they strike for higher wages, after and when they think a favorable opportuthe arrangement and demand pay for the nut coal." Judge Bredin said: "Acts of all its variations and accompaniments, save, Assembly of this character have been perhaps, one. They do not seem yet to compassed from time to time, and, as far as prehend that when they strike they should our knowledge goes, have been of very also endeavor to retain their employment by little benefit to laboring men; in fact, of forcibly preventing other laborers from tak-'no benefit, because, after all, it comes back ing their places. An illustration of this took to the question, 'What is the contract?'" place last week at Reading, Pa. Some 400 Italians amployed on the new re being built through the Schuylkill Valley by the Pennsylvania Railroad Company, struck for an advance from \$1.25 to \$1.35 a day. The contractors immediately paid them off and discharged them. A day or two afterward the Italians heard that another force of laborers was about to be engaged to take their places, and they straightway sought to be taken back. The contractors very unfeelingly took advantage of the unsophisticated children of sunny Italy by rehiring them at \$1.15 a day. This particular strike was, therefore, a boomerang. When the participants determine to engage in a similar movement they will doubtless first reflect over the possible result.

Electric wires have come to stay, and space for their accommodation must be provided, above ground or below. Morse's original idea has been expanded until now there is no assignable limit to the use of electricity through wire conductors. A comdifficulty now so direful in its effect upon mittee representing our principal electric companies in this city, after examining a large number of devices relating to underground systems, decide that a subway of their earnings) arises from the superabund- sufficient capacity for future demands is ance of steam tonnage. The great "boom" essential. They suggest the appointment of in the British shipyards announced from time a commission by the Legislature to prescribe terials which owes its origin to such a com- for several years past was the precurser of routes, charged with functions similar to bination of interests as is here presented can the certain collapse. The London Times those of the Rapid Transit Commission, and certainly not claim to properly represent the views of actual manufacturers upon this point. Yet they all seem to regard themit is the same old story—"overproduction." overproduction." selves as manufacturers, as the circular Last year the registered tonnage of the for the accommodation they may receive.

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The Proposed Bureau of Labor Statistics.

The Hopkins bill for the establishment of a national bureau of labor statistics has passed the House, and is now on the calendar of the Senate for action. The vote on this bill in the House was a surprise even to the friends of the measure. Out of the 202 votes cast, but 19 were in the negative, 183 Members, including some of the most prominent of both political parties, voting for it. The bill was somewhat changed from the form in which it was originally introduced As finally passed it provides for the establishment of a bureau of labor statistics in charge of a commissioner appointed directly by the President and responsible to him, and not to a cabinet officer. He is instructed to acquire all useful information upon the subject of labor, its relation to capital and social, intellectual and moral prosperity of laboring men and women, and to this end is instructed to inquire into the various industries of the United States, the capital invested, the division of labor, machinery and its effects, convict labor, Chinese labor, child labor, rates of wages, hours of labor, earnings, truck system, profits, prices of necessaries of life, accidents, inspections-indeed. all information bearing on the general subject of labor. The chief is authorized to employ such assistants as he may deem necessary for the successful working of the bureau, providing that the total expense shall not exceed \$25,000. The bill must now take its chance in the Senate. This body has already refused to consider a similar bill presented by Senator Blair. What effect the passage of this bill by the House will have upon the Senate remains to be seen; but it is probable that, in view of the demand for such a bill by the laboring portion of our community, the Senate will pass it.

Of the need of the information which it is intended that this bureau shall collect there can be no question. The value of the bureau will depend largely upon the person who is placed at its head. If he is an honest, intelligent man, who has the good-will not only of workingmen, but of the employers, of the country, the information that he can collect will be of the utmost value. On the other hand, if he is a man who has the good-will of only one portion of the community, and either the positive ill-will or is under suspicion of the other portion, his report will be one-sided and of but little value. Whether the proper man to successfully carry out the design of the framers of this bill can be secured for \$3500 a year remains to be seen.

A Crisis in Mexico.

Mexican financial affairs seem to be in a bad way. The Government have been liberal to the verge of recklessness in granting aid to schemes of internal improvement, pledging for that purpose so much of their receipts from customs and other sources of revenue that great embarrassment is experienced in meeting ordinary public expenses. Extraordinary taxes have been levied, an unpopular stamp tax has been imposed on sales of merchandise, and import duties nave been raised. It is even reported that the Government are forcing the citizens to make loans to them, which is a method only in vogue under despotisms. As may be inferred from such a condition of affairs, domestic and foreign trade has been seriously injured, banking institutions are in P difficulty, and there is a possibility of such disastrous consequences as will precipitate a revolt against the constituted authorities, to be followed, if successful, by a reaction against the progressive movements so successfully inaugurated in Mexico.

The people of the United States are deeply interested in these developments, because they have in late years invested an immense amount of capital in permanent improvements in that country. Boston capitalists are most heavily interested, as the Mexican Central Railroad, which is the principal line in Mexico, is almost exclusively owned by them. The building of that railroad and other lines controlled by Americans has induced capital to flow from this country into other Mexican enterprises which hade fair to be remunerative as soon as the two countries began to make the interchange of commodities which the new lines of communication would encourage. The consequences of a general Mexican uprising against the present administration, and the possible destruction of property that would ensue, are so serious that our own Government would seem warranted in taking steps for the preservation of the property of their citizens. The annexation of Mexico is hardly to be desired, and a movement in that direction would meet with much opposition, but it is certainly in order for the United States to take such measures as will secure to our enterprising citizens the fruits of their courage in making such heavy investments for commendable purposes in our neighbor's territory. If the United States refuse to do this, and the American stockholders in Mexican railways should suffer immense losses, our Government would deserve the scorn and contempt of the civilized world.

during the past week. A fortnight of dry we shall have to ship to that part of the pany.

whether control by the city might not give waste land for ravages by fire, which only needed a beginning to cause terrible havoc. From numerous localities reports have been received of serious losses sustained by iron works which use charcoal fuel. Not only have large areas of standing timber been burned from which they obtain supplies, but wood already chopped for coaling has in several instances been consumed, together with buildings of more or less consequence. These forest fires are a serious element to be taken into consideration in the manufacture of charcoal pig iron, and their prevention is a problem which is discussed at almost every gathering of those interested in the business

Changes in the Copper Market.

Since our editorial on copper a month ago a great change has occurred in the European market, and a large sale of Lake has been effected in our own. As was but natural, the interpretation which people on the other side put upon the low sale of 6000 tons of the means of promoting the material, Lake Superior copper over there was that production here would be enormous, and that, fearing a still larger depreciation in in value by reason thereof, the leading mine, on behalf of itself and the remaining companies associated in the transaction, preferred to make a sure thing by selling for months ahead. The announcement of the sale, consequently, at first threw the holders of copper in Europe into a worse panic, for a day or two, than they had been laboring under previously; but the market soon righted and assumed a tolerably steady turn in the opposite direction. The fact is that statistics on the other side were so eminently favorable that even the possibility of large supplies from here later on could not deprive it of its inherent strength. Hence, the firm of W. T. Sargant & Sons, London, under date of April 5, very correctly remarked: "We have again to note the concurrence of excellent deliveries, a diminution of total reserves, and a further decline in market rates. How long such anomalies are to exist it is impossible to say, but, with the present low rate of money, there may be an attraction to capitalists to invest largely. Meantime, those who wish to see a further decline predict that it will take place." And simultaneously Messrs. James Lewis & Son, Liverpool, expressed the feeling as follows: "Rumors of large supplies from the United States in the course of the year, and the entire absence of any desire on the part of the general public to invest in this metal-or, in fact, in anything else-notwithstanding the very favorable statistical position, has caused a decline of about 30 shillings per ton in the value of Chili bars during the past month. The demand from the trade has been very good, and deliveries continue exceptionally full of orders for nearly two months forbeing taken for India."

land and France on the dates named were as the 1st of March was 488, against 506 on

world in 1884 more than 18,000 tons, unless our manufacturers adopt a policy radically different from the one hitherto pursued, and content themselves with smaller profits, thereby increasing the consumption of their wares at home and enabling exporters to South America to place some of our brass goods there.

Manufacturers cannot certainly complain that they do not get the raw material cheap enough nowadays. If the wages they pay are higher than what their European competitors allow operatives, the markets of tropical America are so near at hand, and there are at present so many shipping opportunities at a low freight rate that it can hardly be a very difficult problem to start an export trade, to stimulate which our merchants are quite ready if they can get the goods cheap enough. As with our enormous copper production, steadily on the increase, an outlet has to be found, and as without a doubt it is ultimately our destiny to become, not only the largest exporters of ingot copper and copper ore, but the greatest exporters of brass goods, the question arises whether we may not as well begin to give this matter our earliest attention, instead of relying on the domestic sales of the goods exclusively in a market which sooner or later will be glutted, when the policy of a large profit at home will have to be abandoned, and we shall be forced into the export trade, after passing through a ruinous period of trying to undersell one another at

If the overproduction of copper and its manufactures has the result of developing enterprise, intelligence and energy, it will at least be productive of some permanent good, and prove a greater satisfaction than that of selling to speculators in Europe thousands of tons of our best copper 7 per cent. lower than the price our own manufacturers have to pay for it.

The strike at the Anzin Collieries, France. to which we have before referred, has collapsed. For some time prior to the end of the strike the neighborhood of the mines of each mine a strong body of soldiers was posted ready to repel any attack upon those who returned to work, while detachments of cavalry scoured the main roads and lanes in the vicinity of the mines to protect the men while going to and from their homes. This display of force, broke the last hope of a successful issue of the strike, and it is now at an end. The refusal of the English trades unions to aid hastened the collapse.

The process of restriction of production at the blast furnaces of Great Britain, as well as reduction of wages at these furnaces and other iron works, still continues in Scotland. large. Smelters and manufacturers are On the 1st of April there were 93 furnaces in blast, against III the same time last year. ward, and large quantities of sheets are Sixteen furnaces have been blown out in the Cleveland district, while the total number of The stocks and quantities affoat for Eng- furnaces at work in the United Kingdom on January 1st, and 556 on the 1st of March,

TABLE SHOWING STOCES OF COPPER AND QUANTITIES AFLOAT FOR ENGLAND AND FRANCE.

	1884.	18E8.	1882.	1881.	1880.
	March 31.	March 31.	March 31.	March 31.	March 31.
	Tons.	Tons.	Tons.	Tons.	Tons.
Liverpool and Swansea stocks of bars, ores and regulus, reduced to the standard of fine copper Havre do London stock, Australian, English, &c Thilian produce afloat, per mail advices. Luisan produce afloat, per wire advices. Lustralian produce afloat, per mail advices.	28,790 2,890 8,551	27,190 2,800 4,672 4,782 3,500 844	24,298 2,779 8,685 8,498 2,400 897	82,391 3,875 8,979 8,371 900 1,841	33,000 4,185 4,876 13,187 8,600 1,912
Total tons	89,007	48,238	47,497	56,857	60,760
	£58, 17/6	£64. 15/	£64. b/	£61	£66

The quantity chartered at West Coast during March was 4000 tons.

From January 1 to March 31 in the respective years the quantities have seen as journes.									
	1884. Tons.	1888. Tons.	1882. Tons.	1881. Tons.	1880. Tons.	1879. Tons.	1878. Tons.		
Estimated fine copper, in round numbers	10,600	10,800	8,250	7,200	14,400	11,200	12,500		

supported, as it was acknowledged to be, by a large consumption and great ease in money reaction came, the improvement being some per cent. in a few days. The pres-12,000,000 pounds for delivery in June, 21/2 per cent. Reduction in wages and de-July, August and September at 14 cents.

The presumption is that with some 25,-000,000 pounds disposed of abroad and at home the Lake companies will now strive to make up for diminished profits by an enlarged output, and for this at least the that "this will be a year for receivers. Calumet and Hecla will be well prepared, in Events since then have confirmed this consequence of increased capacity. While prophecy. Quite a number of railroad com-Arizona will at the same time turn out as producers, there will be but little check on of the civilized world.

Much damage has been done to standing timber by fire in various parts of the country during the part week. A fortright of dry

While the stock and affoats were 36 per | 1883. The reports from the shipbuilding cent. lighter, the price was 19 per cent- districts show that the tonnage launched on cheaper than on March 31, 1880; it was, in- the Clyde during the first two months of this deed, the lowest point touched during a de- year was 36,187 tons, against 51,590 tons the cade—sufficient to stop production in any but same time in 1883. On the east coast matprivileged mines. At the same time the ters are even worse, and it is estimated that supply from Chili was only a mere trifle more than one-half of the building berths greater during the first quarter than last are empty. The return of the average price year. So strongly situated, the European of No. 3 Cleveland pig at Middlesboro' for market was therefore ready for an im- the first three months of the present year portant rebound the moment an unreasoning showed the selling price to be 36/8.95 per panic made room for a due appreciation of ton. This reduces the wages of blast furthe intrinsic soundness of the situation, nacemen 3% per cent., while iron miners wages will be reduced on their tonnage rate ⁸/₁₀ penny. Mechanics will suffer a rematters, even without the need of aid from duction of 3 per cent, in their wages, and operators for a rise. Hence, the favorable datal men 2.4 per cent. The return of the Northumberland miners for the three months carried with it a reduction in miners' wages ent month was subsequently ushered in of 11/4 per cent., while the report of the with a laborious negotiation, in which our arbitrator in the North of England finishedmanufacturers secured from the same source iron trade, just issued, gives a reduction of pression of business are not confined to protection countries alone.

> It was remarked early in January by one of the prominent habitues of Wall street panies have been taken out of the hands of

WASHINGTON NEWS.

(From Our Own Correspondent.) WASHINGTON, D. C., May 6, 1884.

Under instructions of a resolution adopted to the restrictions of a resolution adopted at a meeting of the Eastern Pig Iron Association, at Philadelphia, on April 25, a careful canvass of the probable vote on the proposed motion to strike out the enacting clause of the Morrison tariff bill was made, the following result: The total vote of the House of Representatives is 325; total number of Democrats reported for striking out the enacting clause is 46, and the Republicans, 118, making a total of 164. The number of Democrats opposed to striking out the enacting clause is 148; Republicans, 3, making a total of 151. In addition to this number there is a floating vote of Independent Democrats, Nationals and Greenbackers, aggregating 10. Conceding this vote to be cast against striking out would give 161 votes, or a majority of 3 in favor of striking out the enacting clause. The actual vote, which has been fixed for the close of to-day's session, will determine the accuracy of the figures given above.

A SUBSTITUTE PROPOSED.

Representative Converse, of Ohio, who has taken an active part in behalf of the wool industry, has a bill which he will present at the proper time as a substitute or amendment to the Morrison bill, or as an original proposition. The important features of this bill are the restoration of the wool duties of 1867, except as to carpet wools. These and about 20 other articles are to be placed on the free list. It proposes to readjust the duties on metals on the basis of equalization. The tobacco tax is abolished, and manufacturers are to have alcohol free of tax. Manufacturers are allowed a draw back on raw materials equal to the duties, less 10 per cent. Goods imported in Ameri-can bottoms are allowed a rebate of 10 per cent. The estimated reduction by this bill is about \$40,000,000.

RENEWED ATTEMPTS TO COMPROMISE.

Since the beginning of this controversy there have been repeated efforts on the part of the tariff Democrats to effect an agreement upon which both wings of the party can agree. Mr. Morrison and his friends, however, have been opposed to all concessions. The chief basis of compromise has presented the appearance of a camp rather been the wool tariff. One proposition was than a town of colliers. Near the pit-bank the exemption of wool from the operations of the Morrison bill. The reduction under the act of 1883 amounted to 18 per cent. which would then be the total reduction under the present bill, instead of 20 per cent. more. All propositions were declined by Mr. Morrison, in which position he was sustained by Mr. Hurd, of Ohio.

CUSTOMS DECISIONS.

The synopsis of decisions rendered by the treasury Department during the past week contains the following "Nipples, plungers and worms, being parts of fire-arms or accompaniments thereto, held not to be dutiable under the provision for guns and muskets, Paragraphs 202 and 203, but to be dutiable at 45 per cent. ad valorem, under Paragraph 216." (Letter to Collector of Customs at Chicago, Ill.)

The Secretary of the Treasury has given a hearing to manufacturers of metal showcards in the United States against an appeal from a decision assessing duty at the rate of 45 per cent., the appellants claiming that, if dutiable at all, it would be at 25 per cent. ad valorem under the provision for "printed matter." The department, in affirming the ruling of the Collector at Boston in another case, said: "On the 15th of January, 1880, the department, in an analogous case, decided that certain insurance company's tin signs, imported for the use of an insurance company, were not exempt from duty, but were dutiable at the rate of 35 per cent. ad valorem, as manufactures of tin, it being also incidentally held that the provision for 'all printed matter' above mentioned did not cover signs made of tin or any hard sub-stance not embraced in the 'paper' schedule. Following such ruling, the department re-jects the claim of the appellants in both particulars and affirms your decision." It is, therefore, probable that the department will take similar action in the present case.

NAILS.

The application for a rebate on imported ails used in the manufacture of boxes for the export of cans of petroleum has already the export of cans of petroleum has already been mentioned in this correspondence. The following letter from the Assistant Secretary of the Treasury to Mr. C. B. Beach, presi-dent of H. Nail Company, Cleveland, Ohio, will explain itself. The letter says: "The department duly received your letter of the 1st inst., asking, in behalf of the wire nail manufacturers of this country, a consideration of the matter respecting the export drawback on imported wire nails used in the manufacture of boxes made from Canada lumber, and used in casing oil put up in tin cans and shipped for exportation. The law allows a drawback of the duties paid, less 10 per cent on all articles manufactured in the United States wholly from imported materials which may be exported. You make the point that the article which is exported is the oil, and that the article exported is not manufactured wholly of imported materials, and that, therefore, drawback should not be allowed on the materials entering into the manufacture of the boxes. The view taken manufacture of the boxes. by you is contrary to that which has been adopted by this department in many cases, and which forms the general rule by which the drawback law has been administered. The same argument would reject the drawback of duties on tin entering into the man-ufacture of the cans which contain petroleum, and would also reject the drawback on grain bags manufactured in the United States and exported filled with wheat, and Arizona will at the same time turn out as their corporate managers by the courts, to in many other articles which form the coverage there will be but little chack on be operated in the interests of creditors, and erings of domestic merchandise exported. I do not see in the nature of the case sufficient reasons for changing this long-established

Messrs. A. R. Whitney & Co., of New York,

dated February 8, 1884."

The following is the letter of Assistant-Secretary French to Messrs. A. R. Whitney & Co., of New York, referred to: "I am in receipt of your letter of the 4th instant, in regard to the drawback to be allowed on nails used in the making of boxes from Canada lumber, which boxes are to be ex-ported from the United States. Section 3019 of the Revised Statutes, under which such drawback must be allowed, if at all, provides that there shall be allowed on all articles wholly manufactured of imported material, on which duties have been paid when exported, a drawback equal in amount to the duties paid on such materials, 10 per cent. to be retained for the use of the United States. If the nails are made in the United

States out of imported wire, the drawback to be allowed on the nails on exportation would be 90 per cent. of the duty paid on the wire. If the nails are imported in a completely manufactured condition, and are used in the manufactured condition, and are used in the manufacture of boxes, then 90 per cent. of the duties paid on the nails would be allowed. This rule is absolute, and does not admit of modification in the respect mentioned. Nails imported in a completely manufactured condition, and entering into the manufactured con-dition, and entering into the manufacture of boxes, would be considered as part of the material of the box, and so entitled to draw-back without the fact that the nails were

completely manufactured when imported.'

There is much probability of the adoption of the provisions of the Shipping Bill requiring a sum of not over \$1 per mile to be paid American vessels carrying the foreign mails, and also requiring contracts for car-rying the foreign mails to be made with vessels of American registry.

DEFEAT OF THE MORRISON TARIFF BILL.

Later.—The morning hour having been dispensed with, the House at 11.10 went into Committee of the Whole (Mr. Cox, of New York, in the chair) on the tariff bill. After Mr. Brown, of Pennsylvania, had spoken in support of the protective system, and Mr. Townsend, of Illinois, in favor of the bill, Mr. Randall, of Pennsylvania, took the floor in opposition to the bill. He opened by stating the extreme quickness with which capital invested in large industrial establishments took alarm at adverse criticism, while in common with all other interests it was liable to be called on in taxation to aid in the support of the Government. Congress owed it to itself that nothing like a vindictive policy should be adopted. In the nice adjustment of business affairs there was nothing more conducive to success than stability. If there was stability it was the sure foundation of competence, and, as a natural result, capital and labor moved forward in their respective spheres in content and accord and with mutual profit. To judge from the intemperate language and exaggerated rhetoric which had so frequently marked the debate, it would seem as if those engaged in industrial pursuits were robbers and outlaws. As a matter of fact, they were nothing of the sort. They were a part (and represent the sort of the horizons of the sort of part (and no mean part) of the business of the country, and had been invited under the law to engage in those employments, and, therefore, if for no other reason, they were entitled to the protection of the law. were part of our resources as a nation, to develop those resources was a test of true statesmanship. He rejoiced in the growth and prosperity of every section of the country. If the denunciations of the advocountry. If the denunciations of the advo-cates of the bill were believed, the men who had built up our manufactures had com-mitted an unpardonable sin. He could see a good reason why England should think so, but not why such should be the feeling of any citizen of the United States. Great Britain had never ceased to deplore the loss of her American Colonies. She had struck, as she thought, a deadly blow in 1812, and during our late civil war she had done her best to sunder the two sections. Since that time she had changed her policy, and instead of force resorted to persuasion and advice. She eked out the lion's skin with that of the fox. The United States should remember the warning to fear the Greeks even when bringing gifts.

Mr. Blackburn, of Kentucky, felt it necessary to answer some of the arguments advanced by Mr. Randall, and dwelt with much emphasis upon the fact that Mr. Randall had advocated a revision of the tariff in the last Congress and was now opposed to touching Mr. Blackburn also paid his attention to

Mr. Eaton, of Connecticut, and a spicy colloquy between them ensued. Mr. McAdoo, of New Jersey, made a short but vigorous and attractive speech against the bill, and warned the Democratic leaders against any attempt to lead Irish-American voters to the support of tariff measures which might result strengthening English influence over the industrial and commercial conditions of the United States. Mr. Findlay, of Maryland, also denounced the bill in strong language. Mr. Kasson closed the debate on the Republican side after yielding five minutes to Mr. Anderson, who explained his position. Kasson's speech was a masterly effort, and provoked hearty and repeated applause among the opponents of the bill on both sides

Colonel Morrison closed the debate in the longest and strongest speech he ever delivered in the House He seemed to feel that ered in the House his whole political fortune was in peril, and his appeal to his party friends to stand by the bill were piteously eloquent. He vigor ously attacked Mr. Randall and his follow ers, and, turning again and again to his own supporters, he reminded them of their supporters, he reminded them of their pledges to their constituents, and warned them against the political wrath to come in case they should fail to redeem their promise of tariff reform. Toward the conclusion of his speech he attempted to defend and justify the horizontal features of his bill, but the

effort was painfully ineffectual.

Chairman Cox then directed the Clerk to read the first paragraph of the bill, after which Mr. Converse, Democrat, of Ohio, moved to strike out the enacting clause. The vote vas taken at 4.25, and resulted in the defeat of the bill by 156 to 151.

reasons for changing this long-established reading to make an effort to practice and construction of the drawback readjust the tariff on wool, and it is believed law to which you refer, and which is em-bodied in the inclosed copy of letter to port of this measure.

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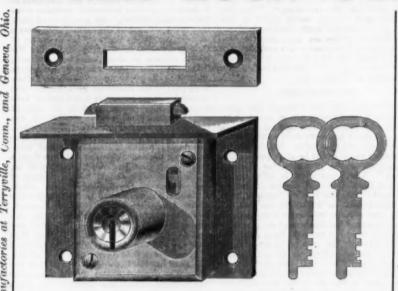
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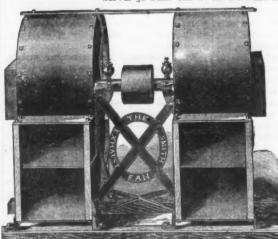
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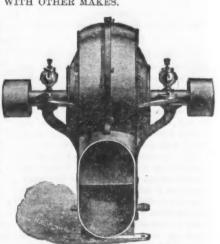
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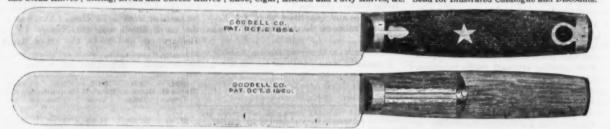
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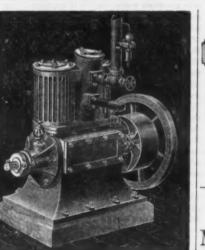
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SAMUEL A. HAINES.
113 Chambers St., N. Y.

113 Chambers St., New York, April 23d, 1884.

Dear Sirs: The firm of Graham & Haines is this day dis-

The firm of Granam & Haines is this day dissolved by agreement.

I have sold my interest in the business and assets of the firm to Mr. John H. Graham. I have also sold and transferred to him my interest and good-will and the right to the successorship of the firm. Mr. Graham is alone entitled to collect the debts due, and will individually pay the liabilities.

liabilities.

Permit me to express to each of the friends and customers of the firm my gratitude for the many favors we have received, and to request that the same may be extended and continued to Mr. Graham. Sincerely yours,

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New York, April 26th, 1884.

Having purchased the interest of Mr. Haines, in our firm of Graham & Haines, I beg to announce that I have formed a new partnership with Mr. John V. O. Miller and my son, Wm. A. Graham, to be conducted under the firm name of John H. Graham & Company, and will continue the business formerly conducted by Graham & Haines, at 1:3 Chambers and 93 Reade Streets, this city.

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A. G. BROUKS, 261 N. Third St., Phila.

To Manufacturers of Machinery.

Having opened a large depot for the sale of Iron, Wood and Textile Machinery and Supplies, and an agency for exhibiting machinery at the Southern Exposition, which is to open in Louisville. Ky., August 15, 1834, and continuing 56 days, correspondence with manufacturers wishing to place their products in this market, and those wishing to be represented at the exposition, is solicited. Manufacturers of machinery are requested to send us catalogues and prices of their goods.

KENTUCKY MACHINERY CO., Main St., bet. 12th and 13th, Louisville, Ky.

E. BISSELL & CO., Wholesale Hardware Auctioneers,

83 Chambers and 65 Reade Sts., N. Y. Sales held weekly for the trade. Consignments solicited. We refer to the leading manufacturers and importers.

Foreman or Superintendent Wanted.

A competent man to take full charge of a Nail Plate Rolling Miil; must be a man who thoroughly understands his business and can give satisfac-tory references; to such a man a good place is open; a practical Roller will have preference, address, giving experience, reference, salary ex-pected, "ROLLING MILL 68,"

Office of The Iron Age, 83 Reade St., New York,

Wanted.

A Salesman for the Southern States to sell new tool.

THE STILES & PARKER PRESS CO.,
Middletown, Con Railway Supplies, principally Forgings and General Iron Work. Address, stating age, experience and salary

wanted.

Lock Box 1086, Philadelphia, Pa. A N ENERGETIC, PUSHING YOUNG MAN, age 32, not afraid or too lazy to werk, with large acquaintance among the iobbing and retail Hardware trade in New York and on the road, is open for engagement. Has long experience as a salesman in locks and builders hardware. Can figure cost of goods, take charge of office, correspondence, &c. A i references. Would like a position as salesman or resident buyer for one or more out-of-town houses, &c. Address in confidence,

Office of The Iron Age, \$3 Reade St., New York.

Wanted.

A competent Founder for a Coke Furnace I should like to invest \$2000 and my time in an established Hardware business in the West. Am thoroughly posted and capable of taking entire charge. Address

Office of The Iron Age, 83 Reade st., New York,

WANTED.

Situation as Iron Rolling Mill Madagor. Have had upwards of 16 years' practical experience in Fuddle Mills, Nerchant Bar and Guide Mills, Satisfactory references given. Address. 44 North Queen St., Lancaster, Pa.

WELL-POSTED HARDWARE MAN OF A consideration of the constant of the const A well-posted Hardware Man of 40 wishes an engagement. Willing to as sume responsibilities. Write or call on

"RALPH." 25 Ferry St., New York City.

WANTED-A Position by a Gentleman of 42, well posted in Builders' Hardware, Agricultural Implements, &c.
Good references.

Address "BUILDER,"
Office of The Iron Age, 83 Reade St., New York.

Special Notices.

For Sale or Exchange.

A party owning a complete Plate and Sheet Mill as per following list, will sell the whole or part of it for cash and long-time payments, or will exchange for Real Estate desirably located in any of the following cities: New York, Chicago, St. Louis or St. Paul,

Louis or St. Paul,

1 Train of Lauth's 24-in, 3-high Rolls.

1 Train of 2-high 22 in. Plate and Sheet Rolls and Duplic ste Rolls.

1 Train of 20-in. Soft Rolls and Duplicate Rolls.

1 Compound 18-in. Muck Train and Duplicate Rolls.

1 Large Rolls.

1 Large Roll Turning Lathe for Turning-up Rolls.

Large Rotary Squeezer for 130 to.

Large Roll Turning Lathe for Turning-up Rolls.

Large Pump.

Large Cranes for Handling Housings and Rolls.

Plate Shear to shear as high as ¾-in. Plates.

Sheet Shear.

Shaping Shear.

Muck Shear.

Scrap Shear and Engine.

Large Sturtevant Blower and Pipe.

Blacksmith's Drill.

Furnace Plates for 8 turnaces, including Annealing and Pair Furnace.

Furnace Plates for 4 Charcoal Fires, including Valves, &c.

Battery of 3 extra flange Fire-box Bollers; size, 25 ft. by 45 in.; 2-fiue...6 in.. to operate together or separate; with all connections.

Large Boller, fire-box metal, 28 ft. by 42 in., or 44 in.

44 in.
Small Boilers, 22 ft. by 42 in.
Track Scale, Wagon Scale, Mill Scales, Tools,
Tramways, Buggles, Patterns, &c.

For Sale—Rolling Mill

H. W. WHITLOCK,

130 Dearborn St., Chicago

AT CINCINNATI, OHIO.

Ten Single Puddling Furnaces.
Two Scrapping Furnaces.
Four Heating Furnaces.
One new 8-inch Hoop Train.
One 18-inch Sheet and Annealing Furnace.
One Compound Muck and Bar Mill.
One Large Engine, in first-rate condition, 26x6o inch stroke, about 275 horse-power, 13-ton flywheel, with gearing complete, for muck bar or sheet mill.
One Hoop Mill Engine, nearly new, 18x24 inch stroke, about 100 horse-power, with pulleys and counter-shaft complete, for hoop, band or guide mill.

One Rail and Heavy Scrap Shears. One Sheet Shears.
One Swing Saw, for bar mill iron.
One Sturtevant's Improved Blower, boilers and

One Swing Sam.'s Improved fixtures complete.

Grounds, 3003200.

Annual capacity, single turn, 5000 tons.

Will sell machinery and fixtures at private sale, and secure favorable lease or sale of grounds.

We also solicit bids for the machinery and mills or trains, either as a whole or for any part of them, to be removed from the grounds.

Cincinnati is one of the largest hoop markets in the country, and there is no other hoop mill in the city. Address

"P. O. BOX 297," Cincinnati, Ohio.

ROLLING MILL,

AT PHILLIPSBURG, NEW JERSEY.

By order of the Chancellor of the State of New Jersey the Delaware Rolling Mill, fixed Machinery, Engines, Boilers, all Tools and everything appertaining to the Mill, with four lots of ground. This mill is well furnished with the requeste appliances for producing sixty or seventy tons of finished Iron per day, has stiling from Pennsylvania Raliroad, Car dump for coal, stables, sheds, and storage rooms, scales and dwelling house. Sold free and clear of all incumbrance whatever, on Wednesday, May 14, 184, at 2 o'clock P. M., on the premises at Philipsburg. For further information apply to PETER I. VOORHEES, 120 Market St., Camden, N. J.

120 Market St., Camden, N. J. SAM'L B. HUEY, 36 S. 3d St., Phila., Pa. ROB'T H. HINCKLEY, 204 S. 5th St., Phila., Pa

For Sale.

AT A SACRIFICE, ALL NEW

3-FI	P.	Engine, 1	Vertical,	complete					0	0	0					.\$84
4	44	8.6	44	46	۰	0			0		0	0		۰		. 100
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H. M. SCIPLE.

107 and 109 N. 3d St., Phila.

Wanted.

HEAVY CASTINGS AND ROLLS.

Wanted to buy Old Heavy Castings and Rolls of all kinds. Address
MATTHEW GILL, Jr., & CO.,

1240 and 1242 North 9th street, Philadelphia.

STEEL GOODS.

We will mail, on application, price lists and discounts on Buffalo Farming Tool Co.'s Hoes, Forks, Rakes, &c.

HENRY BROOKS & CO., Sole Agents, Boston, Mass.

Heavy Bronze and Brass Castings.

A firm having ample floor room and both Crucible and Air Furnaces desires to enter into correspondence with parties requiring regular supplies of heavy green and, dry sand or loam castings in Brass, Composition or Pure Bronze. First-class work at reasonable prices. Can allow good figures for large castings in part payment. "A. H.," Lock 35, West Troy, N. Y.

Wanted.

No. 1 wrought scrap iron, old iron and steel rails, wrought-iron turnings, cast-iron borings and burnt iron. Name quantity, lowest price and point of delivery.

JOS. J. LIPPINCOTT & CO.,

131 South Fourth Street, Philadelphia, Pa.

Special Notices.

New and Second-hand

MACHINER

One tron Planer, planes 8 ft. long, 30 x 30 n. New.
One 7 26 x 26 in.
One 4 4 4 22 x 22 in.
One 4 12 4 36 x 36 in.
One 4 14 4 36 x 36 in.
One 4 15 4 36 x 36 in. Two " 4" 28 X 28 III. "
Two " 4" 20 X 18 III. "
One Upp't Back-geared Self-feed. 8 in. Drill. New.
One " 30 in. "
One " 50 in. "
One " 52 in. "
One " 52 in. "
One " 10 In. Stroke, New.
Two One " 15 " " 10 11 15 11 8 11 Second-hand. Send for Lists of Machinery, just issued.

THE GEO. PLACE MACHINERY CO., 121 Chambers St., New York.

To Brass Foundries. To Brass Manufacturers.

Our new foot press, for cutting off GATES from brass castings by FOOT power, is now ready. Weight, 250 lbs. Frice complete, \$50, net. A boy can operate it easily. We warrant them to give the most perfect satisfaction. PERKLESS FUNCH AND SHEAR CO...

26 W. Dey Street, New York

FOR SALE, GRAND OPPORTUNITY!

A well and carefully selected stock of Shelf and Builders' Hardware, Stoves, Furnishing Goods and a full line of first-class Agricultural implements, and agency for many of the most popular and best-introduced goods in the market. No better stock in Michigan. But one other legitimate Hardware in the city, which is located in Southern Michigan, in what is considered the richest county in the United States; has a population of \$13,000 inhabitants, and manufactories of all kinds. The stock will inventory to-day at about \$20,000; terms of sale, present cash and carriage. Proprieter must dispose of this stock, as be has large outside business which commands his undivided personal attention. The Hardware business has been conducted for about 40 years at the same stand, and the store has a large and first-class line of trade. Investigation will convince one that this is indeed a rare chance (one which occurs but once in a lifetime) to secure a well-established and moneymaking business. For full particulars address "OUTSIDE BUSINESS," "OUTSIDE BUSINESS,"

Office of The Iron Age, 83 Reade Street, N. Y.

For Sale. ONE LEAD PIPE PRESS, complete, with Melting Kettle and all necessary attachments for making Lead Pipe. Also ONE SET of SHEET-LEAD ROLLERS, with Tables, Melting Kettle, Crane, &c., and everything necessary for Rolling Sheet Lead. F. B. LA WRENCE. 36 Clark Street, Chicago, Ill.

For Sale.

Complete Machinery and Patterns for Manufacturing Sad Irons, with Trade-Mark, that command highest price in the market for the goods. Also complete outfit for manufacturing a celebrated brand of Thimble Skeins. Apply to THE GOULDS MFG. CO., Seneca Falis, N. Y. WATER POWER FOR SALE

We offer for sale at a low price all our interest in the water power here, not used in our own manufacturing, amounting to not less than so horse-power, together with about ten acres of land adjoining the Race, making it all available for manufacturing purposes; railroad crosses right over the land within 1000 feet of station; Milidam and Race in excellent condition. The power is not excelled by any water power in Western New York, it being steady the year round. For particulars inquire of

ROMER BROTHERS, Gowanda, N. Y.

\$200

Will buy a so-inch swing, to-foot bed, backgeared Engine Lathe; can be seen in use at our factory for a few days. We want the room for a new tool.

THE STILES & PARKER PRESS CO., Middletown, Conn.

Wanted.

Wanted.

COAL MINES FOR SALE.

Located on the Cincinnati, New Orleans and T. P. Railroad, 124 miles from Chattanooga, in Scott County, Tenn. Contains 8000 acres of Timbered land and 4000 of it Coal land; mines equipped with all necessary buildings; Railroad Scales and Railroad Track-all in first-class order. For terms J. T. SLADE, President, Lexington, Ky.

J. H. WARNER, Chattanooga, Tenn.

HARDWARE SPECIALTIES.

An established company manufacturing specialties would like the Western Agency for a few good Specialties in the Hardware line to work with their present business, which has been established for six years. Good facilities and means to push with.

W. S. GILMAN, W. S. GILMAN, 205 Kinzie St., Chicago, Ill.

Wanted.

Hardware Specialties for introduction to the rade and consumers. Address

FRED. SCHMIEDING.

Special Notices.

NEW AND SECOND-HAND

MACHINERY.

gap Lathe, ? ft. sin. swing, 2d-hand.
? Pit Lathe, ? ft. sin. swing. 2d-hand.
? gain. Boring Lathe, ? ft. between centers. 2d-h.
? Engine Lathe, ? in. swing, ? ft. bed. enters. 2d-h.
? Engine Lathe, ? in. swing, ? ft. bed. Ad-hand.
? Engine Lathe, 2r in. swing, ? ft. bed.
? Engine Lathe, 2r in. swing, ? ft. bed. Aww.
? Engine Lathe, 2r in. swing, ? ft. bed. Aww.
? Engine Lathe, 20 in. swing, ? ft. bed. Aww.
? Engine Lathe, 20 in. swing, ? ft. bed. Aww.
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? Engine Lathe, ? in. swing, ? ft. bed. New.
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? Iron Planer to plane 2 in. x 2 in. x 2 in. x 3 ft.
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. Iron Planer to plane 2 in. x 2 in. x 3 ft.
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J. M. BADGER. 49 DEY STREET, New York City. Machine Shop for Sale,

FOR SALE.

Furnace Manufacturers, Patent Exhibitors To Furnace Manufacturers, Patent Exhibitors and others.
Arrangements can be made to work Sutcliffe's Self-Feeding Super-Heated Air Furnace. Patented in United States and a proved success in England, good royalties being obtained. The Patent Rights will be sold or shared with any respectable firm who will introduce it into the American market. Address.
Office of The Iron Age, 83 Reade st., New York.

FOR SALE. One Lead Lapping Machine, Pratt & Whitney
Co., lap diam. 18-in. One No. 2 Forge, with power,
Buffalo Forge Co.; never used.
20,600 Steel Rivets, 5-16 in. long, diam. 7-32.
31,000 "¼ in. "9-64,
37,000 "Screws 3-22 in. long under head, diameter 3-32 ; 56 threads : round head.
4c,000 Steel Screws, ½-in. long under head, diam.
½; 56 threads : round head.
THE RAZOR BLADE SHEARS MFG. CO.,
Chillicothe, Ohio.

ROLLING MILL FOR SALE.

830 N. 4th Street,
835 Broadway,
St. Louis, Mo.

St. Louis, Mo.

WANTED.—A situation as Foreman of conlight work. Best references as to ability, &c.
Address

"BOX 63,"

Union City, Conn.

Box 64. L. KERNOCHAN, Titusvine, remained to R. L. KERNOCH

with the good-will of a long-established business, located in the center of the manufacturing district of the city of Chicago. Contains about ten Lathes, three Planers and other Tools in proportion, including a complete line of Engine Patterns—Side-Vaive, Variable Cut-Off and some Automatics. Also, long and valuable lease. This is a fine, complete plant, with the best modern tools throughout, and will be sold at a great bargain. The owner desires to sell on account of poor health, and will give time on good security.

Address

Office of The Iron Age, 36 Clark St., Chicago, Ill.

The Iron Mill property formerly occupied by the Eames Oil Fuel Process Company at Titusville, Penn., with good buildings, one reheating and three puddling Firnaces, Hammers, Merchant Rolls, Tools, &c., complete and in perfect order, and five acres of land within the city limits, will be sold on terms advantageous to a purchaser. Apply

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Special Notices.

Bargains in New and Second-hand Machinery

One Corliss Beam Condensing Engine, 30 in. x 72 in. One Horizontal Corliss Engine, 14 in. x 30 in. New. One Horizontal Corliss Engine, 12 in. x 30 in. New. One Horizontal Corliss Engine, 12 in. x 30 in. New. One Horizontal Engine, 12 in. x 16 in. New. One Horizontal Engine, 12 in. x 16 in. New. One Horizontal Engine, 12 in. x 16 in. New. One Horizontal Engine, 12 in. x 16 in. New. One Horizontal Engine, 13 in. x 16 in. New. One Horizontal Engine, 8 in. x 16 in. New. One Horizontal Engine, 8 in. x 16 in. New. One Horizontal Engine, 8 in. x 16 in. New. One Horizontal Engine, 8 in. x 12 in. Ames. One 10 H.P. N. Y. Safety Co.'s Upr. Engine and Boiler. One Horizontal Engine, 8 in. x 12 in. One One Copeland & Bacon Holsting Engine and Boiler. One 4 H.P. Oscillating Engine and Boiler. One Horizontal Engine, 5 in. x 12 in. One Locomotive Holler, 5 in. x 12 in. One Locomotive Holler, 5 in. x 12 in. One Hor. Tub. Boiler, 6 in. x 21 ft. One Hor. Tub. Boiler, 6 in. x 21 ft. New. One Hor. Tub. Boiler, 5 in. x 11 ft. New. One Bor. Tub. Boiler, 5 in. x 11 ft. New. One Bor. Tub. Boiler, 5 in. x 12 ft. New. One Engine Lathe, 13 in. x 6 ft. One Engine Lathe, 13 in. x 6 ft. One Engine Lathe, 14 in. x 6 ft. One Engine Lathe, 15 in. x 6 ft. New. One Engine Lathe, 15 in. x 6 ft. One Engine Lathe, 15 in. x 5 ft. One Engine Lathe, 15 in. x 5 ft. One Engine Lathe, 15 in. x 5 ft. One Engine Lathe, 14 in. x 5 ft. One Engin

J. Gray's Machinery Depot, 37 Dey St., N. Y

GREAT BARGAINS IN **New First-Class Machine Tools**

Sold on 30 days' trial to responsible parties if desired. Engine Lathes, 16 in, swing, 6 and 8 ft. bed. Engine Lathes, 18 in, swing, 8 and 10 ft. bed. Engine Lathes, 20 in, swing, 12½ ft. bed. For prices, cuts and descriptions, apply to JOSEPH B. REED, Cairo, Ill.

For Sale.

One Corliss Beam Engine. Coudensing, 500 H. P. One Adjustable Cut-off Steam Engine, 18 x 48, in first-class condition.

One Wright Automatic Cut-off Engine, 22 x 42. One Dexter Automatic Cut-off Engine, 10 x 15, B. GRAVES LOUDEN. 40 H. P. ne Dexter Automatic Cut-off Engine, 12 X 12, 60 H. P.

60 H. P. One Vertical Engine 6 H. P. One 80 H. P. Horizontal Tubular Boller. One 80 Wertical Boller.

All the above guaranteed in good working condition. NEWELL UNIVERSAL MILL CO.,

10 Barclay Street, New York.

Engines and Boilers,

CHEAP.

Needing the space which they occupy, will sell the following goods very low and on favorable

125 H. P. Horizontal Stationary Engine. New.
120 H. P. Horizontal Stationary Engine. New.
16 H. P. Horizontal Stationary Engine. New.
16 H. P. Vertical Stationary Engine. 2d hand.
16 H. P. Vertical Stationary Engine. New.
15 H. P. Vertical Stationary Engine. New.
1 Locomotive Boiler, 15 horse-power. 2d-hand.
17 Cylinder Boiler, 16 horse-power. 3d-hand.
18 Baragwanath Steam Heater. New.

J. M. BADGER, 49 DEV STREET, New York City.

For Sale.

The largest stock of New and Second-hand En gines, Boilers, and general Machinery in the West, Send for Catalogue. Hoisting Outfits for Coal Mining and other purposes a specialty.

WARREN SPRINGER, 195 to 219 South Canal St., Chicago.

For Sale.

TWO SUGAR PACKERS. ONE VACUUM PUMP, All in good condi GEORGE B. GRAHAM, Address

P. O. Box 689, Baltimore, Md. For Sale.

Second-hand

DROPS and LIFTERS.

BEECHER & PECK, Lock Box 222, New Haven, Conn.

For Sale.

MACHINES For Making Picks, Mattocks, Axes, Solid Steel Hammers and Sledges,

with Adge Eyes or Solid-Punched Eyes. T. & CO., Box 25, Office of The Iron Age, 83 Reade St., New York

Hydraulic Presses

FROM 50 TO 2000 TONS PRESSURE. Special Hydraulic Machinery Constructed. B. GRAVES LOUDEN.

Twenty-second st. and Washington ave., Philadelphia.

To Manufacturers.

The undersigned has just patented a machine for breaking down Bituminous Coal in the mine instead of blasting, to which he desires to call the attention of manufacturers of 11 on specialties. Territory, with exclusive right to manufacture and seil the same, can be had by addressing THOMAS A. MAYS.

Thillipburg, Centre Co., Pa. Send for Illustrated Circular, free.

WILL OFFER below market ates the fol-

AND STRAP AND T HINGES. A. W. WHEELER,

Special Notices.

New and Second-Hand Machinery, Engines, &c.

" (New), 25-in. Upright Drin.
36 in. " (New),
36 in. " (New),
37-in. Cyl., 24 in. Str ke Corliss Engine.
42-in. 42-in. At the Corliss Engine.
42-in. N. Y. S. P. Co.
6 io.in. 44-in. N. Y. S. P. Co.
6 io.in. 44-in. Horizontal Engine
6 iz-in. 45-in. "
6 iz-in. 6-in. "
6 iz-in. 6-in. " "
6 iz-in. 6-in. " "
7 io. Horizontal Engine. On wheels. Rider Cut-off Engine.
N. Y. S. P. Co. 44
Horizontal Engine. (New.)

HENRY I. SNELL, 135 N. Third Street, Philadelphia

THE CLEVELAND

Storage Company

Capital Stock, \$200,000.00.

We are prepared to receive PIG IRON, Blooms, Ingots, Muck-Bar, BAR and Sheet BRON, Car Wheels, Rails, LUMBER, ORB, &c., also every kind of merchandise, on storage. Warrants will be issued on all stock received, made transferable by indorsement and deliverable to the holder on demand. These warrants will furnish a convenient medium of transfer and delivery, and serve as collateral to parties wishing advances on their stock. We shall be glad to furnish full particulars as to the manner of transacting business, and invite correspondence or personal interview.

W. R. DRAKE, Sec. W. R. DRAKE, Sec.

Estimates Furnished

ENGINES AND BOILERS, and contracts taken for power shears, power punches, steam hammers, steam riveters, boiler

22d St. and Washington Ave., Philadelphia.

IMPORTANT TO MANUFACTURERS.

A Gentleman of a responsible Commission and Export House is preparing for a trip to NEW ZEALAND AND AUSTFALIA. Manufacturers desirous of having their goods introduced or th sale of same increased in that market, please address "P. O. BOX 723." New York City.

Wanted.

A Nail Plate Shear man to shear plate for 71 machines. A first-class situation for a sober steady man that understands his business. Reference required. Address SOUTH TREDEGAR IRON CO.,

Chattanooga, Tenn.

WANTED.

TO PURCHASE FOR CASH, OLD IRON RAILS. Highest market price paid

WM. R. HART & CO.

224 S. 3d Street, Philadelphia

Wanted.

An experienced man to fill position of General Manager or Superintendent of a Company engaged in manufacturing and dealing in Flumbers, Gas and Steam Fitters' Tools and supplies: must be able to headle his men and acquainted with the business in all its details. Correspondence solicited and references required.

Address

No. 603 Dunham Ave., Cleveland, O.

WANTED, A SITUATION.

An Eastern American Iron Molder, foreman of a foundry in Pennsylvania, desires the foreman-ship of another foundry. Satisfactory reasons given: will refer to manager of company for whom he is foreman; also give first-class Eastern refer-ences if desired. Thirteen years on light and heavy work, part of time foreman. Address

"FOUNDRY FOREMAN-26"
Office of The Iron Age, 83 Reade st.. New York.

Wanted-Partner,

To a man with capital a fine opportunity is offered in a house doing a good business and of stablished reputation. For particulars, address

"MACHINERY." Office of The Iron Age, 83 Reade st., New York.

A N EXCFLLENT OPPORTUNITY for a party
with something to manufacture, either in
iron or wood, in connection with a foundry established 20 years. Runs by steam; first-class facilities for shipping, securing iron, coal or lumber.
Object, to extend business. For particulars as to
altop room, power & Address
T. F. STIMPSON,
Hancock, Delaware County, N. Y.

Hardware.

An excellent opportunity to engage in the whole-sale trade for one who can command \$25,000, or would like to join hands with a good live concern in the South or Northwest, and put in as capital the stock, which is in excellent condition and well assorted. Address

Special Bargains in Machinery.

Office of The Iron Age, 36 and 38 Clark St., Chicago, Ill

2 Rotary Pumps, \$15 each. Steam and Boller Feed Pumps. Bolt Cutter. \$\frac{1}{2}\$ to 1\frac{1}{2}\$ in., geared, \$75. 2 Portable Hoisting Engines, \$300 and \$350. \$6 H.-P. Engine, \$135; 10 H.-P., \$100; 12 H.-P., \$100; 15 H.-P., \$100; 15 H.-P., \$100; 16 H.-

Metal Exchange

Trade Report.

British Iron and Metal Markets.

[Special Cable Dispatch to The Iron Age.] LONDON, WEDNESDAY, May 7, 1884.

Scotch Pig.-The market is a little weaker. Quotations show a slight reduction on some brands. We quote makers' prices as follows :

Coltness, alongside, Glasgow . . . Langloan, Gartsherrie, Summerlee, Carnbroe, Glengarroad Carnbroe, Glengarnock, "Ardrossan Eglinton, "Ardrossan Balmellington," at Leith Cleveland Pig.-The market is not so

shipping ports: Middlesboro, No. 1 Bessemer Pig-Is a little weaker. We

ots, Nos. 1, 2 and 3, equal portions, f.o.b. shipping ports. Manufactured Iron.-Market is irregu-

lar. We quote at works: Staff. Ord. Marked Bars... 7 10 0 @

Medium " ... 6 5 0 @ 6 15 0

Common " ... 6 0 0 @ 6 5 0 Hoops, 90 W. G. and over.

Steel Rails.-The market is unchanged. We quote Ordinary Sections, £4. 17/6, f.o.b. shipping ports.

Old Rails-Unchanged. We quote Old Scrap-Unchanged. Heavy Wrought is as follows: quoted £2. 15/ @ £2.17/6, c.i.f. New York; Bessemer Crop Ends, run of the mill, are quoted 52/6 @ 54/6, f.o.b. shipping ports.

Copper.-The market is not so steady, and quotations are reduced. Best Selected is quoted £63, and Chili Bars, £57.

Tin-Is a little weaker. We quote Straits Ingot, spot, £85. 15/@ £86. 5/, and futures. £86. 10/ @ £87.

Tin Plates-Are steady. We quote : Tin Plates, 10x14, 1st qual. Charcoal ... 19/6 @ 31/12d ... 18/6 @ 19/12d ... 18/6 @ 19/12d ... 18/6 @ 19/12d ... 18/6 @ 18/12d ... 18/12d

Spelter-Quiet and unchanged. We @ £14. 10/. Lead.—No change. We quote Common

English Pig, £11. @ £11. 10/. Freights.—Steam from Glasgow to New York, 4/6; Liverpool to New York, 5/ Liverpool to Philadelphia, 5/@6/6, and London to New York, 7/6 @ 9/6.

Financial.

Office of The Iron Age, Wednesday Evening, May 7, 1984.

Shrinking values continue to mark the course of the Stock Exchange and of most of the speculative staples, and the results are seen in the occasional disasters which overtake institutions and individuals. Scarcely had the wreck of one of the principal actors in the financial arena, Mr. Keene, been cleared away, when Wall street Marine Bank, one of its most ancient and honored institutions, through the alleged mismanagement of its president, James D. Fish, who has been engaged in extensive building enterprises outside of his legitimate business. The shortage is something like \$500,000, and involves the downfall of the brokerage firm of Grant & Ward, with brokerage firm of Grant & Ward, with the sanks now more specie in their vaults than the sanks now lost of \$20,200,000, which make up about 90 % of the grand total?

The weekly bank statement was again unfavorable, showing a loss of \$2,218,200 in specie and 1,613,800 in surplus reserve, so that the banks now hold only \$808,000 in excess of legal requirements. Despite the large withdrawals of gold for export, the banks have more specie in their vaults than Lead.—Since we last reported the market Marine Bank, one of its most ancient and IN THE GENERAL MACHINERY BUSINESS. brokerage firm of Grant & Ward, with whom President Fish had intimate relations as a special partner. General Grant is also understood to have special capital in the concern, and, according to statements by representatives of the firm, in the absence of Mr. Ward, is liable for his share of the losses, which will probably be \$250,000. Charles F. Elwell, vice-president of the Marine Bank, and one of the incorporators, says the deposits amounted to \$5,000,000, and the surplus, \$250,000; capital, \$400,000. The New York City Comptroller had on deposit about \$1,000,000, and a number of country banks are among the creditors. Manager Camp, of the Clearing House, sees no reason why the depositors should lose steady increase in the Treasury surplus, and anything, as the stockholders are all liable the belief, after investigation, that much of to the extent of the par value of their stock. A week of low prices and many disquiet-

ing rumors had a depressing effect in the general markets. Nevertheless, the Clearing House returns show an improvement of the country at large, compared with the corresponding week one year ago. In the West business is generally quiet, with money in light demand. A pleasing indication is ob-

Keene, but the liabilities not proving to be heavy, and the rates of exchange being reduced, indicating a lessened export of gold, the market regained confidence. On Saturday stocks opened unexpectedly strong, but gave way again under the excessive weakness of Union Pacific and Western Union. On Monday West Shore bonds were strong and advanced, on a report of an agreement for its financial relief, and prices generally were higher. On Tuesday the suspension of the Marine National Bank caused a sud den shock and the market was panicky, prices throughout becoming unsettled, but there was a steadier tone at the close. To-day excitement gave place to a more confident feeling, with narrow fluctuations, it being apparent that the failure of the Marine Bank and simultaneous suspension of a large brokerage firm were circumscribed in their effects, and had no special relation to the general position of business affairs. At the Clearing House all the exchanges were promptly made, and at a meeting of the steady. We continue quotations, f.o.b. bank directors a committee was appointed to co-operate with the United States Exam iner in an investigation of its affairs. The week as a whole was weak and lower, particularly the coal shares.

United States bonds closed to-day as follows:

quote W. C. Hematites 47/@ 48/ for mixed

The blighting effects of speculation in banking and trading circles are clearly shown by Bradstreet's in an analysis of business failures during the last eight weeks. The total for the period named is less than 20 W. G. and under.
Ordinary Best. 8 15 0 @ 9 5 0 for the corresponding period in 1003, and Common. 8 0 0 @ 8 5 0 still declining. The details show that since Bars. 5 2 6 @ 5 5 0 March 1 no less than 15 bank suspensions have occurred, of which 8 are directly traceable to outside operations, and there were III failures where liabilities exceeded \$20,000, of which 21 were purely specula-D. H.'s, £3. 7/6 @ £3. 10/, c.i.f. New York. tive. In a tabulated form the statistics are

	Total number.	Number caused by speculation	Per cent, of speculative failures.
Banks	15	8	58
Speculators ex- clusively Traders with from \$20,000 to	21	21	100
\$100,000 liabili- ties Traders with \$100,000 upw'd	58	6	11
liabilities	22	5	23 "
Totals	111	40	86

On Wall street it is remarked, "the money kings are melting away." Look at the record: Among the Gould stocks, within quote Ordinary, at shipping ports, £14. 5/ a few months, Western Union has gone from 88¼ to 60¼—a decline of 28; Missouri Pacific from 106% to 80¼—a decline of 2654; Union Pacific from 10434 to 581/2-a decline of 4514, while Wabash common and preferred are nearly wiped out. And the Vanderbilts are little better, New York the Vanderbilts are little better, New York Central falling from 129% to 113%, Lake Shore from 114% to 95%, Michigan Central from 100% to 80%, and Chicago and Northwestern from 140% to 1113%! Henry Clews, whose opinion is considered authority with many financiers, within the past week estimated the shrinkage in the value of securities since the opening of the last campaign at \$1,500,000,000, and it is remarkable that this enormcus depreciation has taken place without commotion, excepting as it indicates "a rich man's pan's." cepting as it indicates "a rich man's panic. From the totals given it appears that 36 % of specified failures having \$20,000 or more liabilities were due to speculation, suggesting

> one year ago. to be well supplied, as the tendency of do mestic exchange in favor of New York in a measure offsets the shipment of gold to Furope; but the rate for loans on stock col-lateral has slightly advanced, the bulk of transactions being on the basis of 2½ @ 3 %. The future of the money market depends on the movement of specie, which just now promises to be on a more moderate scale. The posted rates for bankers' sterling were

> reduced to \$4.88 for 60 day and \$4.90 for sight, in consequence of a lighter demand. Shipments afford little or no profit.
>
> The 127th call for the redemption of Gov. ernment bonds was issued by Secretary Folger on Saturday, being for \$10,000,000 3's, to mature on the 20th of June next The the gold export was due to speculation, caused Secretary Folger to determine upon making a bond call. At the close of the fiscal year the bonded debt will have been reduced \$101,500,000.
> The imports of mercha: dise at this port

10.4 per cent. in the volume of transactions during the past week, although considerably in New York, and of 4.9 per cent. taking increased compared with the previous week, are still of moderate proportions, the total being \$8,394.541, of which \$1,956,791 repre-sents dry goods. Since January 1 the imports aggregate \$157,190,104, compared with \$163 430,983 for the corresponding period of served in the steadily diminishing number of business failures reported by our mercantile agencies.

\$103 430.903 for the contest of specie from this port business failures reported by our mercantile last week, as reported by the Custom House, were \$3,322,563, making a total since Januwere \$3,322,563, making a total since Memberships
SCREWS,
RAP AND T HINGES.

WM WILLIS MERRILL.
Room 419, New Produce Exchange, besier in besier in Locks was caused by the failure of James R.

W. WHEELER,
141 Lake Street, Chicago, Ill.

Wenc \$3,322,563, making a total since January 1 of \$41,196,342, against \$5,843,137 for much perturbed, and several of the leading specialties, such as Union Pacific, Western Union and Central Pacific suffered a further decline. For a day or two much feverishness was caused by the failure of James R.

Were \$3,322,563, making a total since January 1 of \$41,196,342, against \$5,843,137 for the same period in 1883, and \$35,500,000 since gold shipments began in February. The imports of specie for the week amounted to \$215,036, making a total since January 1 of \$4,640,844, against \$7,195,849 for the same time last year. The exports of domestic cookson at 114.6.

Cookson at 114.6.

tic produce are still of unsatisfactory pro portions, the total for the past week amount ing to \$6,033,295, against \$7,583,931 for the same week last year. Since January 1 the exports aggregate \$102,446,911, compared with \$125,961,665 for the corresponding period of 1883.

period of 1503.

Our export trade is not sufficient in volume to prevent a heavy balance which is now working against us. True, shipments of working against us. True, shipments of wheat and flour are for the last week reported larger than in the previous week, and larger than one year ago, and corn is moving out more liberally, but the gain is offset by the decrease in exports of cotton, equal to 67,000 bales compared with the same week last year. On the Produce Exchange it is re-marked that exporters are still out of the market, despite a further break in prices. Yesterday there were no transactions, in consequence of the removal of the Exchange to the new building, which was opened on Wednesday night with great éclat, some 10,000 persons being in attendance.

Metal Market.

Copper.-The sale alluded to in our last report, made by the Lake Superior companies, of 12,000,000 lb of Copper to manufacturers, at 14¢, delivery spread over four months, beginning with next month, has been perfected, and since then the market has been quiet at 141/4 @ 143/30, Lake, nominally; 140 "Anchor" brand, and 131/20 @ 14¢ other brands. Export of Ingot Copper from the United States during the first eight months of fiscal year, 12,196,038 pounds, against 2,187,185 in 1883. Manufactures may be quoted as under : Bottoms, 24¢; Braziers, 24¢; Sheeting, 22¢, and Bolt Copper, 24¢. London cabled last night, Chili Bars, £57, and Best Selected, £62. To-day we receive from there the following dispatch: "Market not so steady, and quotaions reduced. Best Selected £63, and Chili Bars £57."

Tin - Our market has been unsettled. The available supply is light and the speculators for a rise try to make the best of it, but with only partial success, the consumptive demand being too slack to justify the prices asked. We quote Straits, large lines, 19¢@ 191/6¢, and jobbing lots, 191/4¢@ 193/6. At these figures the market is quiet. Import into the United States first eight months of fiscal year, 19,803,199 lb., against 18,026,-176 lb in 1883; re-export, 35,948 lb, against 77,840 lb; net import 19,767,251 lb, against 17,948,336 lb. Mr. Charles Nordhaus, East India agent, No. 13 Cedar street, furnishes us the valuable statistics below:

AMERICAN STATISTICS OF TIN.

April 1, stock in United States..... April 1 to 30, arrivals " Total..... April 1 to 30, consumption estimated... May 1, stock in United States..... 800 May I, stock in United States. 800

Afloat from Straits.
Sailed. Vesse'. For. Due.
Feb. 1 to 29, steamers N. Y. May. 100
March 1 to 31, "May-June. 400
April 1 to 30, "June-July. 550—1,050 April 1 to 30, afloat from Australia... April 1 to 30, "Europe.... May 1, visible supply.... The last quotation from London, received this morning, was £86 Straits Tin, and £85. 10/ cost and freight ? steam from Singapore to New York. To-day we are cabled thence to the following effect: "Market a little weaker. Straits Ingot, spot, £85. 15/ @

Tin Plates.—The market has been quiet, there being a jobbing demand only. Coke is scarcer on the spot. We quote at the close, large lines, ordinary brands, ? box : Charcoal Bright, \$5.40 @ \$5.75; do. Ternes, \$5 @ \$5.37½; Coke Tin, \$4.80 @ \$4.90, and do. Ternes, \$4.621/2 @ \$4.75. Import into the Keene, been cleared away, when Wall street was suddenly startled by the collapse of the Marine Bank, one of its most ancient and United States during the first eight months

£86. 5/, and futures, £86. 10/@ £87."

The money market continues has been moderately active only, some 500 tons Common Domestic selling at \$3.60, including some Newark, and this is the price at the close for both Common and Refined, while St. Louis is nominally \$3.40. Now that the tariff question is out of the way, it is possible that Lead may again attract some speculative inquiry, and that such a movement may be attended with better success than the last two manipulations of the kind. At least, we shall have to be prepared for something of the kind. Manufactures are quoted as follows: Lead Pipe, 61/4; Sheet Lead, 71/4; Tin-lined Lead Pipe, 15¢, and Block-Tin Pipe, 45¢, less the discount to dealers. From London we are told that there is no change in the market.

Spelter and Zinc.-The market has been dull, Common Domestic Spelter offering and selling at \$4.50 @ \$4.60. tion is, however, intrinsically sound and strong, and the tariff incubus removed, there is every likelihood of greater animation in the near future, accompanied by an improvement in value. Silesian is worth 5¢ nominally. Import into the United States during the first eight months of fiscal year, 4,470,075 lb. against 13,220,635 in 1883; domestic export 91,014 lb, against 805,212. We quote Bertha Refined, 8¢, and Sheet Zinc, on a quiet market, 53/4 @ 51/84. From London

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Trade Report.

Philadelphia.

Office of The Iron Age, 220 South Fourth St., (PHILADELPHIA, May 6, 1884.

Pig Iron. -The market remains in a very dull condition, and while indications of im provement are seen once in a while, the general outcome is not satisfactory. In comparing the condition of the market today with what it was a week ago, it is difficult to see any change at all, either for better or worse, while the general surroundings remain just about as they were at that time. There is nothing in the outlook to warrant very sanguine expectations in regard to the summer trade, neither is there any reason to suppose that it will be much different to the average of the past four months, Choice Foundry Irons are scarce and may stiffen up a little, but other grades are dull and irregular, with somewhat of a tendency to slightly lower figures. The position is extremely sensitive, however, and in a condition to respond very quickly to influences either favorable or unfavorable. The supply of the best grades of No. 1 Iron being very light, for instance, any increase of demand would probably cause such a scarcity as to advance prices, while any de crease would just as quickly affect such grades as are already in excess of requirements. Hence the futility of making predictions when the conditions are liable to vary almost at any moment. The chances, however, seem to be that there will be no important changes at present, and in that belief both buyers and sellers are trading from hand to mouth, and taking no risks beyond the next 10 or 12 weeks. At the same time, there are some low grades of Iron on the market which holders are anxious to realize upon and for these low figure would be accepted. As mentioned last week, there is a tendency to increase the supply of this class of Iron under the mistaken idea that buyers will take it because it can be offered at low prices. On the contrary, there are increasing evidences of a more critical selection of qualities, and, while low quotations may unsettle the market, the article will not find permanent buyers unless the quality is something that can be depended upon. Prices remain about as quoted a week ago, say, \$20 @ \$20.50 for No. 1 Foundry, \$18.50 @ \$19 for No. 2, and \$18 @ \$19 for Mill Irons, all delivered at tide. Buyers of large lots expect to shade these prices a trifle, and in exceptional instances it is probable that they have succeeded in doing so. A sale of 8000 tons of Cornwall Red-Short Iron was sold to one of the rail mills in Scranton, price understood to be about \$18, delivered.

Foreign Iron.-Bessemer is offered for shipment to New York at \$20, and on firm offers could doubtless be had at less, but consumers are very cautious in making bids. A 1000-ton lot 20 % Speigel was sold at \$28, New York, and prices steady at \$28 bid for 1000-ton lots.

Muck Bars .- The demand is very slow, and while prices are nominally unchanged, it is probable that considerable shading would be necessary to effect sales. Asking prices are from \$31 to \$32 at mill, according to circumstances.

Blooms.-The market continues dull and prices varying. The best brands are pretty firmly held at quoted rates, but conces of from \$1 to \$2 are frequently heard of. We quote as follows: Charcoal Blooms, \$55 @ \$56 : Run-out Anthracite, \$45 @ \$46 : Scrap Blooms, \$41 @ \$42; Northern Ore Blooms, \$30 @ \$41.

Bar Iron.—The demand continues to be very slow and unsatisfactory, although there the bridges for the West Shore Rahway, and to the numerous structures erected for most of the principal railroads in the United bility of a considerable reduction in the output during the summer months. Absolutely bottom prices are believed to have been reached for the best qualities of Finished Iron, so that if buyers do not come that our bridges and other structures are forward sellers see no use in pushing matters further. It is satisfactory, therefore, to the premises, from the ore to their completed learn that there is a solid foundation to build condition ready for erection. You may thus on, although it may be some time yet before rely with absolute confidence upon our assurany actual improvement is realized. In the meantime prices will be held with a fair degree of firmness at from 1.75¢ to 1.85¢ for medium qualities, and 1.9¢ @ 2¢ for the best Refined.

Plate and Tank Iron.-There is no change worth mentioning, the demand being slow and considerably less than the current output. Prices are steady, however, and with any material increase in the demand. which can hardly be long delayed, it should not occasion surprise to see somewhat higher figures. In the meantime quotations are as follows: Boat Plate and Tank Iron, 2.2¢ @ 2.25¢; Shell, 2.75¢ @ 2.85¢; Flange, 3.75¢ @ 3.85¢; Fire-Box, 4.75¢.

Structural Iron.-The general feeling is pected to be closed before now, but for some material change from the present condition of things. Prices remain as last quoted, viz. : Angles, 2.2¢ @ 2.25¢; Bridge Plates, 2.25¢; T's, 2.75¢; Beams and Channels, 3.5¢, less the usual discount on large orders.

n are shout as follows :

1	quality breet from are about as fortows :		
İ	Best Refined, Nos. 26, 27 and 28	4	4
1	Best Refined, Nos. 18 to 25	834	i
1	Common We less than the above.		
ı	Best Bloom Sheets, Nos. 26 to 28	634	ı
ı	Best Bloom Sheets, Nos. 22 to 25	6	4
Į	Best Bloom Sheets, Nos. 16 to 21	594	d
l	Common Red Plates, 3-16 to 16 2340	2.6	ķ
l	Blue Annealed	2094	4
l	Best Bloom, Galvanized, discount	50	9
I	Second quality, discount	236	9
1	Common, discount 57	36	9
Ì			,

P. S .- In this connection it may be stated that Messrs. Alan Wood & Co. are now prepared to furnish Light Plates and Sheets made from Steel.

Wrought Iron Pipe. - There is some slight improvement in demand to be noted this week, and the amount of inquiry shows some increase. As far as the manufacturers are concerned, prices are firmly adhered to, pected in view of the very unsatisfactory but there is evidently some shading done by dealers in consequence of the agency system sibility of a lockout on June 1, are buying which was introduced with the new combination, but lately abolished. We quote as follows: Butt-Welded Black Pipe, 271/2 @ policy will no doubt be closely adhered to 30 %; Butt-Welded Galvanized, 171/2 @ 20 %; Lap-Welded Black, 471/2 @ 50%; Galvanized, 32 1/2 @ 35 %; Boiler Tubes, 47 1/2 %.

Steel Rails.-There is quite an active demand for deliveries extending to about August, and for such prices are firm at from \$33 to \$33.50, and orders hard to place. For later deliveries there is considerable anxiety to secure business, but buyers seem to be quite indifferent and not at all disposed to make firm offers. For winter work in goodsized lots it is probable that prices could be shaded a little, although \$33 is the nominal

Crop Ends .- There is more disposition to do business, and while the best makes are held at about \$21.50, there are others offering all the way down to \$20. The demand is chiefly for best qualities, sales of which are reported at \$21 @ \$21.50.

Old Rails.-Small lots are tolerably active at about \$22.50 and upward. Large lots move slowly. A sale of a few hundred tons at \$21.50, Philadelphia, was reported yesterday. Generally speaking, the market is in a very disturbed condition, and it is extremely difficult to give exact quotations, as much depends on size of lots, quality, &c.

Nails -No change whatever in Nails The demand for small lots is good, and prices tolerably firm as last quoted, viz. : \$2.50 @ \$2.60, according to size of lot.

We have received the following circular The copartnership of Clark, Reeves & Co. having been dissolved by the mutual consent of its members, a copartnership under the name of the Phoenix Bridge Company has been formed for the purpose of carrying on the business heretofore conducted by that firm. The principal officers of this company are the following members of the late firm of Clark, Reeves & Co. : Adolphus Bonzano, David Reeves and William H. Reeves, aided by the same corps of engineers and assist-

ants.

The engineering office, shops and works will be, as heretofore, at Phoenixville, Pa., where are located the extensive works of the Phoenix Iron Company, constituting, in connection with this company, the largest and most complete establishment in the country for the manufacture of bridges and all kind of structures of iron and steel. Among the productions of these works, we have the honor to invite your attention to the Kinzua Viaduct of the Erie Railway, the design of Adolphus Bonzano, the elevated railways in Eighth, Ninth and Second Avenues, in the City of New York, the bridges for the West Shore Railway, and

We call particular attention to the fact made of materials wholly manufactured on wille Bridge Works will be fully maintained, as well for quality of material and work-manship as for prompt and faithful execution of contracts. We are fully prepared to tion of contracts. We are fully prepared to make and submit designs for and to manu-facture and erect complete, bridges, viaducts, roofs, piers, towers, elevated railroads and all kinds of structural work in iron and For estimates, plans and tenders ad dress the Phœnix Bridge Company, 410 Walnut street, Philadelphia.

Pittsburgh.

Office of The Iron Age, 77 Fourth Avenue, PITTSBURGH, PA., May 6, 1884.

There has been no important change in the general Iron situation since our last report. one of quietude, although there is a moder- Inquiry demonstrates that the demand is ate amount of business taken from week to light for the season and prices unsatisfactory. week. Several large contracts which have The wage question is attracting more attenbeen on the market for some time were ex- tion just new than anything else; the hitch between the mill-owners and the ironworkers reason or other delays have occurred, and has not yet been adjusted, and the prospects, the contracts are still unsigned. The outlook we regret to state, for an amicable settleis fairly encouraging, however, and there is ment are not very promising. Mill-owners no reason to suppose that there will be any say that unless the workers submit to the of 1500 tons of Standard Rails at \$22.75, proposed reduction a lockout is inevitable; that they cannot, in the present depressed condition of the Iron trade, renew the scale now in force, and while they would prefer to Railway Spikes are still quoted at 2½\$, 30 mand the price quoted. There are special Plate Scrap, P net ton, \$14; No. 1 Stove mand the price quoted. There are special Plate Scrap, P net ton, \$9; Wrought Turn-

ontinues active, and some manufacturers shut down than to run them at a loss. The 234 @ 3\$. have sold their product for the entire year; ironworkers, on the other hand, appear to be others are inclined to hold off in expectation impressed with the belief that the mill-ownquality is freely offered, which, though not the last moment they will accept the terms at \$24.75, delivered in Pittsburgh. taken to any great extent, gives the market proposed by the Amalgamated Association. an irregular appearance. Prices for first- Thus the matter stands at present, and what will result is one of those things past finding out. The indications at the moment point to a shut-down on the 1st of June, as both parties appear determined, although there is still a possibility that the matter may be brought to an amicable settlement.

Ore.—The latest advices from the Lake to quote at \$18 @ \$19, gross. Ore region report no change in the situation there; the demand, of course, has fallen, as weeks ago, but some companies are pretty well sold ahead.

Pig Iron.-There is still a fair move ment in Pig Iron, and, notwithstanding the demand is still of a hand-to-mouth character, we can report a fair volume of business in the aggregate. Consumers, as might be excondition of the products, as well as the posvery sparingly, ordering from day to day as their immediate necessities require, and this until the wage issue has been decided. No sooner is an order placed for a small lotsay, 50 to 100 tons-than immediate delivery is required; mill-owners allow stocks to run clear down before they will buy; hence, delivery is demanded at once. Prices con tinue weak, but remain about as last quoted some furnaces refuse to accept inside quotation, but consumers have no trouble in obtaining all they need within the range of our quotations. Production continues light, and there is little or no accumulation in first hands : furnaces in blast are nearly all working on former contracts. We quote prices as follows :

Foundry Grades	\$18.00	0	\$20.00,	4	mos
Neutral Mill Iron	17.00	0	17.50,	4	0.0
All-Ore Mill Iron	18.50	0	19.00,	4	6.6
Red Short, Cinder Machine.	18.00		18.25,	4	64
	17.50	0	18.50,	4	64
Warm-Blast Charcoal	92.00	a	24.00,	4	6.6
Cold Blast, Charcoal	26.00	0	28,00,	4	6.6
Bessemer Iron	20.50	ā	21.00,	4	44

There is a rumor on the street of a sale of 1200 tons Mill Iron at \$16, cash, but it lacks the retailer and more promptly paid bills. confirmation; it is safe, however, to say that no first-class Neutral Iron could be bought at that price. Bessemer Iron-that steady, with poor prospects of an advance is, for round lots-we are assured, cannot now be bought under \$20, cash, although there was a sale some time since at \$19.50, cash. Best brands of Neutral Mill may be quoted Four Point, Painted 1% less & lb, upon which firm at \$17, cash, and \$17.50, four months.

Muck Bar -There have been no sales reported during the week, in the absence of which we continue to quote at \$31, cash, although it is possible that it could be bought at \$31, four months.

Manufactured Iron.-Trade does not improve, although there is a possibility, in view of the very light trade all spring, that it may be better than usual through the summer. Manufacturers generally are in pretty their stocks are kept at the lowest point that good condition for a lockout, having a pretty well-assorted stock, and a shut-down for a couple of months would enable them to realize better prices. Even if a lockout should be avoided, it is probable some of the mills indication that prices will advance unless will shut down for a time during the summer unless business should improve materially in the meantime. We continue to quote to some extent strengthen quotations that prices on a basis of 1.75¢ @ 1.85¢ @ 1.9¢ for Bars, according to size and character of order, as well as time of delivery.

Nails - The Nail trade continues backward for the season, but an increased demand is only a question of time, as the consumption is large and stocks in hands of jobbers light. The latter have been holding off all spring, in apprehension of lower hard pan has been reached we look for a ent prices. to 30 60 days. 2 % off for cash, and 5¢ @ 10¢ W keg additional in a jobbing way.

Wrought Iron Pipe.-The demand conthe better later on in the season. Prices remain unchanged. Discount on Black Butt-Welded Pipe, in car lots and upward, 30 % less than carload, 27 1/2 %; on Galvanized do., 20 % and 171/2 % respectively. On Black Lap-Welded Pipe, car lots, 50 %; less than car lots, 471/4 %; Galvanized do., 35 % and 32 1/2 %; Selected Pipe or Pipe cut to specified lengths, the discount is 5 % less.

Steel.-There is a very fair business particularly in the lower grades, but prices are irregular and unsatisfactory. Best quality of Refined Cast Steel, 91/2¢; do. Crucible Machinery, 5¢; Open Hearth and Bessemer do., 31/4 @ 31/24.

Sterl Rails .- So far as known, there have been no sales made here under \$35, cash, at mill. Makers here are pretty well \$19 @ \$21; Anthracite, No. 1, at \$22, and sold ahead, and at better prices than the one quoted. There is considerable inquiry, and a good many orders could be placed at \$32 @ \$33, and buyers are holding back in expectation of being able to buy at prices last quoted later on in the season.

this market at last: we are reported a sale and more are being offered at same price.

Railway Track Supplies - Continue

Crop Ends .- Steel Rail Ends are quoted

Scrap.—The dullness noted for some weeks past continues, and there is so little doing that it is difficult to give accurate quotations. No. 1 Wrought, \$20 @ \$21, net ton; Old Car Axles, \$29 @ \$30; Cast Borings, \$12.50 @ \$13.50, gross ton; Old Wheels reported scarce and firmer, but there does not appear to be much inquiry for them. We continue

Window Glass .- There is an increasing business, and the indications are favorable compared with what it was a month or six | for a good summer trade. | Prices steady; Discounts for carload lots, 60 and 20 % on Single and 70 and 5 % on Double Strength.

Coke.-Blast Furnace Coke remains unchanged at \$1.10 P ton, delivered free on cars at ovens : business only fair.

Coal .- The river continues too low for the shipment of Coal South, and, with source of supply cut off for several weeks, the markets below have commenced to stiffen.

Chicago

Office of The Iron Age, 36 and 38 Clark St., (Cor. Lake St., Chicago, May 5, 1884.

Hardware.-In reviewing the Hardware market of the past week we find the situation substantially the same as a week ago. Although jobbers are doing a fair amount of ousiness, there is not the activity in the trade that indicates a particularly flourishing condition. Demand has settled upon consumption as a basis, and no orders of importance are placed in anticipation. Another feature that has been holding in check some portions of the trade that has in former years come into the market earlier is the refusal of jobbers to date bills ahead on goods that are not especially saleable at the time of shipment. Various reasons are assigned for this action. the prominent one being the fluctuation in price between the time of sale and the maturity of the bill, which frequently leads to dissatisfaction and loss. The effect will be to extend the sale of these goods to a later date, leaving less unsold stock in the hands of Sales are pretty well distributed among all classes of goods, while prices are noted as except on a few specialties. Among these is Barb Wire, which is in good request and held firm at 6¢ @ 6¼ for Galvanized, Two and price manufacturers have within the past week endeavored to raise another 1/ # 15, The movement was opposed by the more conservative, for fear of inviting new competition, and the price was allowed to stand for the present.

Nails .- The demand for Nails continue to improve slewly and apparently only as consumption warrants. There is no disposition to speculate on the part of jobbers, and will meet their retail demand. In a small jobbing way \$2.50 @ \$2.55 is quoted, while carload lots are held at \$2.45 as the lowest figures that will be accepted. There is no demand, which from scarcity of stock might are at this writing weak and feverish.

Ore .- There is nothing new to add to the position of the Ore market as noted last week. Quotations are made from \$6 to \$6.50, the latter figure being the Republic Company's price on dock at Cleveland. Some talk of scarcity in the latter part of the year is current, but the foundation for such rumor is supposed to be the desire on the prices, and once they become satisfied that part of Ore companies to effect sales at pres-

American Pig Iron .- During the past signs of improvement. A general feeling prevails that the market is in a fair, healthy condition, with a steady demand for small lots from direct consumption. There is little tinues light, unusually so for the season, but or no prospect of this condition changing it is hoped that there will be a change for during the next two months. As is customary at the first of the month, a few more inquiries over the previous week are reported. With nothing in the scale of prices to induce purchasers to load themselves with large stocks, furnaces are confining their energies to the small trade, and making the most of their opportunities. While stocks of Lake Superior Charcoal Irons are reported very low, there has not as yet been any difficulty in meeting the demand at the following quotations, four months, for carload lots Lake Superior Charcoal, Nos. 1, 2 and 3, at \$21.75 @ \$22.50; Nos. 4, 5, and 6 at \$23; Lake Superior Coke at \$21; Lake Superior and Ohio, mixed, at \$21: Ohio Standard Black Band, No. 1, \$21 @ \$22; Southern, No. 1, at \$20, and No. 2 at \$19; Silvery Soft at No. 2 at \$21.

Scotch Pig.-Buyers of Scotch Pig are indifferent, and the market continues without interest. Summerlee is quoted at \$26, cash-50¢ off of former price. Holders of Glengarnock are quoting \$27, regular, though stand a fair chance of acceptance.

Merchant Steel .- The Steel market conbrands of "known" Steels are in better keep their mills in operation, they have ar- days, here, and less at points in the West; makes that are held above our quotations, lings, \$8; Cast-Iron Borings, \$7;

Sheet Iron.—The demand for Thin Sheets rived at the conclusion that it is better to Splice Bars, 1.75¢ @ 1.85¢; Track Bolts, both for regular and extras, but not representing the majority of trade. We take the high grades, embracing nearly all the standat \$20.50 @ \$21, and Bloom Ends at \$20 @ ard manufactures, as a basis, and make the of better figures. Sheet Iron of indifferent ers are playing a game of bluff, and that at \$20.50. Sale, 1100 tons foreign Crop Ends following quotations for the Best Refined

	Present .	
		Per pound.
	Best Refined Cast Tool Steel	916 @ 10¢
	Crucible Cast Machinery Steel	644 @ 6360
	Open-Hearth Machinery Steel	314 @ 3160
	Bessemer Machinery Steel	31/4 @ 33/40
	Open-Hearth Spring Steel	316 @ 37/c
1	Toe-Calk Steel	816 @ 8346
	Bessemer Steel	294 @ 8 6
	Cast Plow Steel	416 @ 484e
	German Plow Steel	814 @ 3946
	Syndicate Steel	934 @
	Fire-Box and Boiler Steel	514 @ 5160
		->4 (0) ->81

Steel Rails .- There are buyers in the market for small lots to be delivered during the latter part of the summer, but prices asked and offered are so wide apart that there is little change of doing business. Rolling mills persist in their demand of \$37 B ton as an asking price, and unless they re ceive an offer of at least \$35 they are unwilling to open negotiations for new trade.

Old Rails .- The call for Old Rails is less urgent than a week ago. Sellers are holding at \$22, without transactions. Mills quote \$20 @ \$21, Chicago or Milwaukee, in trade or cash, and meet their requirements at these figures.

Bar Iron.-In speaking of the Bar-Iron trade in this market it is necessary to pay strict attention to the quality of Iron. The remarks on "New Puddled" Iron do not apply to "Common," or that class of Iron manufactured from Old Rails, and would be misleading if applied to the latter. Those who handle nothing but the "New Puddled" Iron are having an excellent trade in large and small shipments, both for city and country delivery. The recent reduction of 10 \$ has brought the price so near the figures of Common Iron that the trade in this class has been dull and very unsatisfactory, because all users of Iron can purchase the best in the market for 10 @ 20 more than he must pay for Old-Rail Iron. Therefore it is plain why one man is full of orders while his neighbor is comparatively idle. For Best Refined "New Puddled" we quote 1.9¢ @ 2¢ to the average trade, and a concession of To con orders of special inducement. Common Iron is quoted firm at mill at \$1.60 @ \$1.70. and \$1.80 from store

Norway Bars .- The demand for Norway nd Swedish Irons has been quite fair during the last week. Prices are ruling firm at 4¢ rates in a retail way and \$3.90 to the Merchant jobbing trade.

Structural Iron.-The demand for this lass of Iron falls short of anticipations up to this writing. Contracts for large buildings have been in course of negotiation for some time that have not yet been consummated, when it was contemplated a month ago that they would be well under construction by the first of May. In the meantime considerable unexpected trade from the surrounding country has spruug up, and a fair business is being done from store stock, together with current orders on contract, making a reasonably good market for the season. The following quotations are from mill and subject to discount as per association schedule on large orders. From store stock 1/4 @ 1/2 is added on these prices: Beams, \$3.60; Channels, \$3.60; T Iron, \$3; Angle Iron, \$2.50; Flitch Plates, \$2.50; Frieze Plates, \$2.70.

Galvanized Iron.—The manufacturers of Galvanized Sheets having at length become disgusted with the course pursued during the last six or more months, in attempting to drive each other out of the market by cutting prices, came to an understanding last week and made the uniform price on Juniata 55 % off, and on Refined 55 and 10 % off, to stand one month, and to be continued there after if satisfactory. While these are our exact quotations of last week, it is nevertheless regarded as an advance of from 21/2 to 5 % on the former price, as concessions week the Pig Iron market has shown no were made to this extent in the interest of competition, and are now given as bottom prices to the best trade. In a jobbing way 50 and 2 % off on the former and 50 and % off on the latter is quoted. The demand has improved some during the week, and the Cornice interest promises to still further increase trade within the next two weeks.

Black Sheets .- Our remarks on Black Sheet last week will apply as well to the present. There is no prospect of anything better. It appears to be in as bad a way as it can possibly be and remain in existence. Nobody wants any; nobody sells any, and nobody knows enough about to make a reasonably fair quotation. We give the following as nominal: Nos. 10 to 14 at \$2.60 @ \$2.70; No. 24 at \$3.20; Nos. 25 and 26 at \$3.30, and No. 27 at \$3.40.

Old Car Wheels .- Old Wheels are in fair demand, but less firm in the hands of brokers than a week ago. Foundries are offering from \$18.50 to \$19, and holders ask from \$19.50 to \$21, according to location, quality and their respective opinions regarding the market.

Scrap Iron.-The abundance of Scrap that has flooded the market since fine weather began has eased up the market, and prices have accordingly been on the Old Rails, -There has been a break in an offer at considerably less in cash would decline, and grading closely watched. Mills are quoting about \$17 @ \$18 for Chicago or Milwaukee delivery. We make the following tinues weak and demand light. The best quotations as dealers' purchasing prices: No. I Wrought Scrap, 7 net ton, \$16.50; for re \$2.35 Coa Comm ers, \$ Col nace; Bar

Hor Merch time o tinue quote

Mercha follows of Jun terrifie prover for the apathe some e former induced later i Wire rods, coils, 10,687

Wire rods, bdls., 11,746 Wire, bdls., 2400

11,749 Wire, bdls., 2400 Bars, 1000 Rivet ends, colls, 5280 Spiegel, tons, 480 Wire, colls, 217 Old rails, tons, 200 Old fish plates, tons, 50 Fence wire ends, 11,302 Scrap, tons, 200

Scrap, tons, 200 Bundles, 80

Steel. Abbott Jere & Co. Wire, bdls., 288 Baring Bros. & Co. Wire rods, coils, 8899 Bundles, 398

Bundles, 398
Brown Wm.
Cases, 19
Bundles, 165
Cary & Moen.
Bess, rods, bdls., 412
Casks, 35
Dolge Alfred,
Wire, cask, 1

Plate, 1

Old Plow Steel, \$9; Tool Steel, \$18; tionally low, there are no eager takers. The Steel Tire, P net ton, \$15; Buggy Springs, net ton, \$17; Malleable Scrap, \$5.

May 3, 1884: Pig Lead.—The past week has seen lower values in Pig Lead, prices settling down to \$3.45, although very little can be sold here at that. The transactions for the sold here at that. The transactions for the sold here at that. The transactions for the week sum up about 900 tons at prices ranging arcund \$3.50 @ \$3.45. Just what will be the course of the Lead market in the near future is hard to tell, but certainly the present prices are near the cost of production,

Chattanooga.

Office of The Iron Age, Carter and Ninth Sts., Chatranooga, May 5, 1884.

Southern commercial business has shown no marked feature during the past week. Some financial relief will come to the Tennessee and Lower Mississippi Valleys in the next two or three weeks through returns on heavy shipments of berries and early fruits. The crops are generally fair, and in some localities large. The movement of lumber from Southern to Eastern points continues active, and the prospects of a heavy trade during the summer are excellent. There is still some agitation for readjustment of general freight rates in the South on goods going to and coming from the Eastern seaboard. Rates to and from Northern and Northwestern points have been generally satisfactory for some years, this being especially the case with shipments of Iron, lumber and coarse cotton goods from Southern markets to the Northern and Western cities. The industrial situation in the South continues in fair condition.

of special interest. Stocks of high-grade Irons continue light, the filling of yearly contracts and current sales keeping furnace yards comparatively bare of good Foundry and Mill grades. Mill Iron continues \$14.70 @ \$15 for near-by delivery; No. I Foundry, \$17. We quote small lots, 60 days: No. I Foundry, \$18 @ \$19; No. 2 Foundry, \$17 @ \$18; Gray Forge, \$16 @ \$17; White and Mottled, \$14 @ \$15; Car-Wheel Metal, \$23 @ \$24.

Ores.-We quote Fosseliferous Ores, averaging about 50 % Metallic Iron, \$1.50 % ton delivered at river landings; higher qualities \$1.75. Brown Hematite, \$1.75 @ \$2 on cars

Miscellaneous Articles .- Old Rails are not in very full supply and are fairly firm at \$21; Wrought and Scrap dull at \$14 @ \$16 for choice lots; Old Wheels nominal, \$18 @

Nails .- The Nail market is steady at \$2.50 special terms to large buyers shaded about 10¢ by Northern mills. Job lots 10¢ @ 15¢ higher.

Merchant Iron.-Lookout Mill, Chattanooga, has closed indefinitely. The reasons given by the manager are: A decision of the Chancery Court that the executors of Hozlehurt, late chief owner of the stock, must sell the stock and cannot run the mill under the terms of the will; and the high rates of labor fixed by the Amalgamated Association. This will materially shorten Southern production of Bar and Spikes during the summer. We quote Bar dull at \$1.85 for round assorted lots; Bolts, \$2.80 @ \$3 for Square and Hexagon Heads; Spikes, \$2.35; Splices, \$1.85.

Coal .- We quote Fancy Lump at \$3; Common, \$2.50; run of mine to manufacturers, \$1.50 @ \$1.75 at mills.

Coke.—We quote at \$2 @ \$2.20 at furnace; Foundry Coke at 8¢ @ 10¢ \$7 bushel. Barbed Wire .- Four-Point Galvanized, 6¢ B B; Cambria Link, 6¢ B B.

St. Louis.

HOFFER & Co., Pig Iron and Iron Ore
Merchants, 318 Olive street, report to us as
follows, under date of May 3, 1884: The
market, if anything, is weaker than at the
time of our last report. We, however, continue our quetations of last week. We

Boerlin Louis.
Case, 1
Boker Hermann & Co.
Hardware, cutlery
and guns, pkgs., 4
Burkinshaw W. C.
Cases, 3
Field Alfred & Co. quote: HOT BLAST CHARCOAL TRONS

dor brast chancoal inc	NO.
Missouri SouthernOhio	20,00 @ 22.00
COAL AND COKE IRONS.	
MissouriSouthernOhio	18.50 @ 19.50
MILL IRONS.	
Red-short	
CAR WHEEL AND MALLEABLE	TRONS.
Missouri	25.00 @ 28.00

Louisville

W. B. BELENAP & Co., Iron and Steel Merchants, Nos. 115 to 121 West Main street, Louisville, under date of May 3, report as follows: Bar Iron is certainly dull. Threats of June troubles have fallen flat on the unterrified buyer, and his orders come in slowly and as unimportant as ever. The proverbial May dullness began in April—the only evidence of forwardness in an other wise very backward season. The usual rally for the spring trade did not put in its appearance at all. We shall drift along in an apathetic way till the bottom drops out or some effort materializes to reduce production. Hoops and Bands are being cut down tion. Hoops and Bands are being cut down to force sales. Buyers are few, and a carload is as eagerly sought after as 100 tons formerly. Sheet.—The confidence that was induced by the mere precedent of advances later in the season seems to have been shaken, and, while lots are offered excep-

advance by concerted action of the Galvanizers is a trifle encouraging. Nails.—There has been a lull in the demand for Nails, EVERETT & Post, 156 Lake street, Chicago, report to us as follows, under date of

its valuable timber.

General depression in all branches of trade is unmistakable and undeniable. Iron has not shrunk so much as many of the leading securities on the stock list. First mortgage bonds that a year or two ago brought par are now begging at 50¢. Our Louisville and Nashville-now most economically managed and prospering in all its brances-is quoted for its stock about 46.

Baltimore.

Wire, cask, 1
Lazard Freres,
Cases, 35
Mayer, Strousse & Co.
Casks, 27
Naylor & Co.
Billets, 6480
Rods, bdls., 30,000
Hoops, 1043
Stroud, Sibbald & Co.
Rails, 1200
Vail Bros.
Cases, 2
Vom Cleff & Co.
Steel ware, cs., 4 R. C. HOFFMAN & Co., Pig and Railroad Iron Merchants, No. 21 South Frederick street, write as follows, under date of May 5, 1884: In our market the demand for Pig Iron has been rather quiet, and sales only moderate at former prices, viz.:

Baltimore	Charcoal	Wheel	Iron (all	
Baltimore	e Ore)			28,00 @ 29,00
Virginia C.	B. Wheel	Iron		28.00 @ 29.00
Anthracite,				21.00 @ 23.00
44	No. 2			20,00 @ 21.00
14	No. 8			18.00 @ 20.00
5.6	Mottled a	and Whi	te	14.00 @ 16.00
TAT NO Y	TT-TENTE	Inon as	Locato be	Monohant

W. N. WYETH, Iron and Steel Merchaut, 46 and 48 South Charles street, reports us the following, under date of May 5, 1884: We have to report improvement in trade circles for the past week, the volume of bus-iness done being satisfactory, but margins remaining close and at about cost of produc-Pig Iron.—The market presents no points | tion. Values continue quotably unchanged :

Ref. Bar Iron, 1 to 6 x % to 1	1 19 10 1 9-10 @ 2 ¢
" 1 to 416 x 136 to	1 78 To 1 9-10 @ 2 0
" " 34 to 2, Rou	ind
and Square	19 10 1 9-10 @ 2 ¢
Hoop Iron, 11/4 wide and upwa	rd " 334 @ 8 ¢
Band Iron, from 114 to 6 in. wi	de " 216 @ 26-10¢
Horse-shoe Iron	" 3 1-10 @ 8 2-10¢
Norway Nail Rods	" 5 @ 514 ¢
Black Diamond Cast Steel	" 10 @ 11 @
Machinery Steel	" 416 @ 5 0
Spring Steel	" 4 @ 414 0
Common Horse Nails	" 10 @ 11 ¢
Railroad Spikes, 51/2 x 9-16	
Perkins's Horse Shoes, W kee	of 100 fb \$3.8714
" Mule Shoes	4.8712

Old Metals, Rags, &c.

		_		
The purchasing price	ces offe	ered 1	by de	ealers
are as follows:				
Copper, neavy	W To.		a	.11
light	6.6	\$0,091		.10
Copper Bottoms		.00	- a	.10
Yellow Metal		.073		***
		.07	100	***
Brass, heavy		.07	300	
III MELLER CERTER CONTRACTOR CONT			0	
Composition, heavy		.10	. 60	
Lead, heavy		.031	4 @	*****
Tea Lead	45	.023	4 @	.03
Zinc	0.0	.033	40	* ***
Pewter, No. 1	. 44	.14	0	** **
16 No. 2	66	.10	0	*****
Wrought Iron	W ton,	20.00	6	*****
Light "	66	12.00	60.1	13.00
Stove Plate Iron	66	10.00		10.50
Machinery 44	64	14.50	(A) 1	15.00
Chate Born	46	4.50	@	
Grate Bars	W TD.	.043		.05
Stereotype Plates		.031		.03%
Electrotype "		.05		.0516
Small Type		.00	0	.0099
The prices current	(prices	paid	by	local
dealers) for Rags, &c.,	are as	follow	78:	
Canvas, Linen		19 D.	816 6	24 6
White Cotton, New			836 6	B ¢
4 No. 2		46	212 6	a 21/40
White, No. 1		66	344 6	A 4 C
14 No. 2		66	134 6	m 2 e
Seconds		66	12.0	21 6
Soft Woolens		60		0 6 e
				20.00
Mixed Rags				B 144¢
Gunny Bagging			9 9	@ 214¢
Jute Butts			# 6	D 2546
Kentucky Bagging				@ 3%4¢
Book Stock			194 6	C 2 6
Newspapers		. 66	1 6	D ¢
Waste Paper and Scraps .			36 6	D ¢
Kentucky Bale Rope		44	336 6	D4 ¢
			-	

Imports and Exports. Ptlm. gls. 3, 254, 1033 and 2016 (locks, pkgs. 64 996 Mf. iron, pkgs. 15 360 Sew. ma., cs. 1509 33, 133

The following were the Imports of Hardware Iron, Steel and Metals into the Port New York for the week ending May 1884: Witte John G. & Bro Hardware and lery, cs., 13 Firearms, cs., 13

9	Hardware, cutler
9	and guns, pkgs., 4
-	Hardware, cutler and guns, pkgs., 4 Burkinshaw W. C.
	Cases, 8
Э	Field Alfred & Co.
	Mdse., cs., 11
	Cases, 5
	Funch, Edye & Co.
9	Machinery, case, 1
0 0	Faber Eberhard.
U	Case, 1
	Graef Cutlery Co.
0	Cutlery, cs., 4
0 0 0	Gerdan Otto,
Ö	Packages, 118
	Hemsheim L.
	Machinery, ca., 7
0	Machinery, pkgs., 3
0	Hartley & Graham.
	Arms, cs., 2
	Midne on 18

Bardware.

Cirael Cuttory Co.
Cutlery, cs., 4
Gerdan Otto,
Packages, 118
Hemsheim L.
Machinery, cs., 7
Machinery, pkgs., 3
Hartley & Graham.
Arms, cs., 2
Mdse., cs., 16
Knauth, Nachod &
Kuhne.
Machinery, cs., 18
McCoy & Sanders.
Case, 1
Moore's Sons J. P.
Mdse., cs., 17
Northern Pacific RR. Co.
Machinery, case, 1
Oastler W. C.
Boiler, case, 1
Boiler, parts, 2
Boiler, pkgs., 8
Wheels, 4
Schoverling, Daly &
Gales,
Arms, cs., 16

Whoshort compet a
Boiler, parts, 2
Boiler, pkgs., 8
Wheels, 4
Schoverling, Daly &
Gales.
Arms, cs., 16
Mdso., cs., 24
Star Theo. B.
Cases, 2
Sourlot E.
Machinery, cs., 16 Vom Cleff & Co.
Ironware, cs., 10
Wells, Fargo & Co.
Case, 1
Wolfsilior, Heckmer &
Co.
Arms, cs., 9
Wright Peter & Co.
Machinery, pkgs., 8
Wiebusch, Hilger & Co.
Anvila, 266
Cutlery and hard-
ware, cs., 19

),	Firearms, cs., 13	IJ
rv	Order,	
47	Machinery, cs., 2	1
	Machinery, pkgs., 6 Chains, cks., 4)
	Cases, 6	1
	Chains, picul, 1	
		1
	Iron.	1
	Baring Bros. & Co.	١,
	Wire rods, coils, 4060	3
- 1	Bars, 4861	i
1	Wire rods, bdls., 8814 Becker & Hahn.	(
	Wire rods, pkgs.,5751	1
	Brown Bros. & Co.	
	Wire rods, coils, 1217	(
	Bruno, Silva & Co.	1
3	Ore, tons, 300	j
	Crocker Bros.	1
	Pig, tons, 500	1
0.	Ferro. iron, lot, 1	
&	Cary & Moen.	(
	Wire, bdls., 334 Coddington T. B. & Co.	1
	Sheets, bdls., 414	Γ,
	Drexel, Morgan & Co.	
	Rivet wire, coils, 687	1
. 1	Elliott, Sons & Co.	
0.	Ore, kgs., 307,500	3
	Lundberg Gust.	-
	McIlhanney W. H.	
	Rails, 1888	I
	Morton, Bliss & Co.	
	Cast pipes, 28	F
	Cast pipes, 28 Naylor & Co.	
	Rods, 1150	I
	Wire rods, bdls., 7965	A
	Rods, bdls., 11,987	
	Rods, in colls, 12,110 Rods, pkgs., 2990	1
	Wire rods.pkgs., 3761	I
	Spiegel, cks., 76	
	Pim, Forwood & Co.	1
	Wire, bdls., 50	100
	Shafer J. C. & Co.	ŀ
0.	Wire, cs., 2 Stetson Geo. W. Pig, tons, 800	5
&	Pig tong 800	3
	Williamson Jas. & Co.	6
	Pig, tons, 200.	CREGIE
8	Order,	1
0.	Rods, pkgs., 15,369	(
	Pig, tons, 9000	20
rd-	Pipes, 289	627
	Sheet, pkgs., 200	3

rt of	Bremen.	Cider mills, cs 6
	Wash ma. cse. 1 20	Scales, cs 196 5
7 6,	Ag. imp., pkgs 231 2,595	Glasgow.
, 0,	PTE. DIB., UNB. 4 010	Hdw., cs 54
	I Pulli, Els. I. soo, sto Lal, Loo	S. rollers, cs 8
0.	Brass gds., cs. 2 44	Needles, case. 1 1
cut-	Mach'y, pkgs. 3 300	Sew. ma., cs 84 2
	Hdw., pkgs 22 984	Scales, cs 4
1	Mf. iron, pkgs 4 167	Mach'y, pkge. 1
0	Antwerp.	Cartridges, cse 1
	Sew. ma., cs 145 8,060	Ag. imp.,pkgs 128 Mf. iron, pkgs 4
8., 6	Ptlm., gals. 406,000 35,000	Mf. iron, pkgs 4 Tubes, bdls 12
	Rifles, cs 2 175	Rifles, case 1
	Kastrup.	Mexico.
	Ptlm., gals. 296,648 20,450	Revolvers, cs. 7 1
	Copenhagen.	Clocks, pkgs 20
	Ptlm., gals. 202, 374 17,100	Cartridges, cs 27
4060	Hdw., cs 15 354	Hdw., pkgs 108 2
0011	Wringers, bxs. 14 280	Pumps, pkgs. 15
8814	Clocks, pkge. 1 40	Cutlery, cs 16
,5751	Ag. imp., pkgs 49 1,589	Mach. oil, es 2
,0101	Rotterdam.	Buckles, case. 1 Saws, case 1
1217	Clocks, pkgs 14 482	
2021	Ag. imp., pkgs 15 851	Sew. ma., cs 25 Mach'y, pkgs. 25 2
	Bells, cs 2 184	Blower 1
	Mf. iron, pkge 1 50	Tel. wire, coils 37
	Hdw., cs 25 945	Per. caps, cs., 11
1	Hdw., cs 25 945 Mach'y, pkgs. 11 442	Per. caps, cs 11 Mf. iron, pkgs 29
	Copper casks. 27 4,700	Scales, cs 6
Co.	Pumps, pkgs 4 295	Ag, imp., pkgs 2
60.	Wringers, cs. 28 1,250	Nails, kegs 89
o.	Gottenburg.	Tacks, cs 14
687	Ptlm., gals. 220,186 19,275	Ptlm., gals 400
	Christiania.	Tarragona.
)	Mf. iron, pkgs 5 95	Pthn., gals. 165,325 15
		Brasil.
	Elsinore.	Drust.
	Elsinore.	
	Ptlm., gals.349,409 30,332	Ptlm., gals.135,008 15, Guns, cs 5
	Ptlm., gals.349,409 30,332 Stockholm.	Ptlm., gals.185,008 15, Guns, cs 5 Car wheels 52
	Ptlm., gals.349,409 30,332 <i>Stockholm</i> . Ptlm., gals.114,485 12,970	Ptlm., gals.135,008 15, Guns, cs 5 Car wheels 52 Iron safe 1
	Ptim., gais.349,409 30,332 **Stockholm.** Ptim., gais.114,485 12,970 **Stottin.**	Ptim., gals.135,008 15, Guns, cs 5 Car wheels 82 Iron safe 1 Rifles case 1
796K	Ptim., gais.349,409 30,332 **Stockholm.** Ptim., gais.114,485 12,970 **Stottin.**	Ptlm., gals.135,008 15, Guns, cs 5 Car wheels 52 Iron safe 1 Rifles case 1 Ag. imp.,pkgs 58
7965	Ptlm., gals.349,409 30,333 **Stockholm.** Ptlm., gals.114,485 12,970 **Stockin.** Ptlm.gls.1,225,586 104,787	Ptim., gais.135,008 15, Guns, cs 5 Car wheels 52 Iron safe 1 Rifles case 1 Ag. imp.,pkgs 58 Agate ware,cs 3
37	Ptlm., gals.349,409 30,332 Stockholm. Ptlm., gals.114,485 12,970 Stettin. Ptlm.gls.1,225,586 104,787 Amsterdam.	Ptim., gais.135,008 15, Guns, cs 5 Car wheels 52 Iron safe 1 Rifles case 1 Ag. imppkgs 58 Agate ware, cs. 3 Saws, cs 9 Boiler tubs.bdls 31
110	Ptlm., gals.349,409 30,832 Stockholm. Ptlm., gals.114,485 12,970 Stettin. Ptlm.gls.1,225,386 104,787 Amsterdam. W. mills, case. 1 40	Ptim., gais.135,008 15, Guns, cs 5 Car wheels 52 Iron safe 1 Rifles case 1 Ag. imppkgs 58 Agate ware, cs. 3 Saws, cs 9 Boiler tubs.bdls 31
110	Ptlm., gals.349,409 30,832 Stockholms. Ptlm., gals.114,485 12,970 Stottin. Ptlm.gls.1,225,586 104,787 Amsterdams. W. mills, case. 1 40 Ptlm., gals.398,998 34,654	Ptim., gais.135,008 15, Guns, cs 5 Car wheels 52 Iron safe 1 Rifles case 1 Ag. imppkgs 58 Agate ware, cs. 3 Saws, cs 9 Boiler tubs.bdls 31
110	Ptlm., gals.349,409 30,332 Stockholm. Ptlm., gals.114,485 12,970 Stettin. Ptlm., gis.1,225,586 104,787 Amsterdam. W. mills, case. 1 Ptlm., gals.368,988 34,654 Liverpool.	Ptim., gals.135,008 15, Guns, cs 5 Car wheels 82 Iron safe 1 Rifles case 1 Ag. imp.,pkgs 58 Agate ware, cs 8 Saws, cs 2 Boiler tubs,bdls 31 Hdw., pkgs 597 5 Mach'y, pkgs 110 Nails, kegs 51
110	Ptlm., gals.349,409 30,832 Stockholm. Ptlm., gals.114,485 12,970 Stettin. Ptlm.gls.1,225,586 104,787 Amsterdam. W. mills, case. 1 40 Ptlm., gals.398,998 34,654 Liverpool. Ag. imp., pkgs 560 11,158	Ptim., gals.135,008 15, Guns, cs
110	Ptlm., gals.349,409 30,332 Stockholm. Ptlm., gals.114,485 12,970 Stottin. Ptlm.gls.1,225,586 104,787 Amsterdam. W. mills, case. 1 40 Ptlm., gals.368,998 34,654 Liverpool. Ag. imp., pkgs 560 11,158 Sew. ma., cs 58 1,330	Ptim., gals.135,008 15, Guns, cs 5 Guns, cs 5 Car wheels 82 Iron safe 1 Rifles case 1 Ag. imp.,pkgs 58 Agate ware, cs. 3 Saws, cs 2 Boiler tubs,bdls 31 Hdw., pkgs 597 5 Mach'y, pkgs 10 9. Nails, kegs 51 Shoe nails,bxs 49 Clocks, cs 107 2
110	Ptlm., gals.349,409 30,832 **Stockholm.** Ptlm., gals.114,485 12,970 **Stottin.** Ptlm.gls.1,225,386 104,787 **Amsterdam.** W. mills, case. 1 40 Ptlm., gals.389,998 34,654 **Liverpool.* Ag.imp., pkgs 560 11,153 Sew. ma., cs. 58 1,330 **Hodw., pkgs. 59 1,838 **Hodw., pkgs. 59 1,838	Ptim., gals.135,008 15, Guns, cs 5 Guns, cs 5 Car wheels 82 Iron safe 1 Rifles case 1 Ag. imp.,pkgs 58 Agate ware, cs. 3 Saws, cs 2 Boiler tubs,bdls 31 Hdw., pkgs 597 5 Mach'y, pkgs 10 9. Nails, kegs 51 Shoe nails,bxs 49 Clocks, cs 107 2
110	Ptlm., gals.349,409 30,332 Stockholm. Ptlm., gals.114,485 12,970 Stettin. Ptlm., gls.1,225,586 104,787 Amsterdam. W. mills, case. 1 40 Ptlm., gals.388,998 34,654 Liverpool. Ag. imp., pkgs 560 11,153 Sew. ma., cs. 58 1,330 Hdw., pkgs 89 1,838 Clocks, pkgs 89 1,838 Clocks, pkgs 89 1,838	Ptim., gals.135,008 15, Guns, cs 5 Guns, cs 5 Car wheels 52 Iron safe 1 Rifles case 1 Ag. imp., pkgs 58 Agate ware, cs 2 Boiler tubs, bdls 31 Hdw., pkgs 597 5 Mach y, pkgs 10 9, Nails, kegs 51 Shoe nails, bxs 49 Clocks, cs 107 2 Mf. iron, pkgs 101 Pumps, pkgs 14
110	Ptlm., gals.349,409 30,332 *Stockholm.* Ptlm., gals.114,485 12,970 *Stettin.* Ptlm.gls.1,225,586 104,787 *Amsterdam.* W. mills, case. 1 Ptlm., gals.398,998 34,654 *Liverpool.* Ag. imp., pkgs 530 11,153 Sew. ma., cs. 34,1350 Hdw., pkgs. 89 1,838 Clocks, pkgs. 301 3,715 Mach'y, pkgs. 24 1,955	Ptim., gals.135,008 15, Guns, cs 5 Guns, cs 5 Car wheels 52 Iron safe 1 Rifles case 1 Ag. imp., pkgs 58 Agate ware, cs 2 Boiler tubs, bdls 31 Hdw., pkgs 597 5 Mach'y, pkgs 10 Shoe nails, bxs 49 Clocks, cs 107 2 Mf. iron, pkgs 101 Pumps, pkgs 11 Irons, cs 111 Scales, cs 9
37 ,110 3761	Ptlm., gals.349,409 30,332 *Stockholm.* Ptlm., gals.114,485 12,970 *Stettin.* Ptlm., gis.1,225,586 104,787 *Amsterdam.* W. mills, case. 1 Ptlm., gals.368,998 34,654 *Liverpool.* Ag. imp., pkgs 530 11,153 Sew. ma., cs. 58 1,330 Hdw., pkgs 49 1,858 Nails, pkgs 901 8,715 Mach'y, pkgs 4 1,555 Nails, pkge 1 50 S. rollers, cae. 1 58	Ptim., gals.135,008 15, Guns, cs. 5 Guns, cs. 5 Car wheels 82 Iron safe 1 Ag. imp.,pkgs 58 Agate ware, cs 3 Soiler tubs, bdls 31 Hdw., pkgs. 597 Mach y, pkgs. 110 Shoe nails,bxs 49 Clocks, cs. 107 Mf. iron, pkgs 101 Pumps, pkgs. 14 Irons, cs. 111 Scales, cs. 9 Tacks, cs. 9
37 ,110 3761	Ptlm., gals.349,409 30,832 **Stockholm.** Ptlm., gals.114,485 12,970 **Stettin.** Ptlm.gls.1,225,586 104,787 **Amsterdam.** M. mills, case. 1 40 Ptlm., gals.398,998 34,654 **Liverpool.** Ag. imp., pkgs 560 11,158 Sew. ma., cs. 58 1,339 Hdw., pkgs. 89 1,888 Clocks, pkgs. 201 3,715 Mach'y, pkgs. 24 1,255 Mach'y, pkgs. 24 1,255 Mais, pigg. 1 50 S. rollers, cae. 1 58 Plat'd w're, cs. 1 541	Ptim., gals.135,008 15, Guns, cs 5 Guns, cs 5 Car wheels 52 Iron safe 1 Rifles case 1 Ag. imp., pkgs 58 Agate ware, cs. 3 Saws, cs 2 Boiler tubs, bdls 31 Hdw., pkgs 50 Nails, kegs 51 Shoe nails, bxs 49 Clocks, cs 107 2 Mf. iron, pkgs 101 Pumps, pkgs 14 Irons, cs 11 Scales, cs 3 Tacks, cs 3 Tacks, cs 9 Cutlery, cs 8 8
37 3110 3761 300.	Ptlm., gals.349,409 30,832 **Stockholm.** Ptlm., gals.114,485 12,970 **Stettin.** Ptlm.gls.1,225,586 104,787 **Amsterdam.** M. mills, case. 1 40 Ptlm., gals.398,998 34,654 **Liverpool.** Ag. imp., pkgs 560 11,158 Sew. ma., cs. 58 1,339 Hdw., pkgs. 89 1,888 Clocks, pkgs. 201 3,715 Mach'y, pkgs. 24 1,255 Mach'y, pkgs. 24 1,255 Mais, pigg. 1 50 S. rollers, cae. 1 58 Plat'd w're, cs. 1 541	Ptim., gals.135,008 15, Guns, cs. 5 Guns, cs. 5 Car wheels. 82 Iron safe. 1 Rifles case. 1 Ag. imp.,pkgs 58 Agate ware, cs. 3 Soiler tubs, bdls 31 Hdw., pkgs. 597 5 Mach'y, pkgs. 110 Nails, kegs. 51 Shoe nails,bxs 49 Clocks, cs. 107 Mf. iron, pkgs 101 Pumps, pkgs. 111 Scales, cs. 2 Cutlery, cs. 88 W. mill ms.,cs. 7
37 3110 3761 300.	Ptlm., gals.349,409 30,832 **Stockholm.** Ptlm., gals.114,485 12,970 **Stettin.** **Ptlm.gls.1,225,586 104,787 **Amsterdam.** **W. mills, case. 1 40 Ptlm., gals.398,998 34,654 **Liverpool.** **Ag. imp., pkgs 550 11,153 Sew. ma., cs. 58 1,330 Hdw., pkgs. 59 1,838 Clocks, pkgs. 201 3,715 Mach'y, pkgs. 24 1,350 Nalis, pkgs. 24 1,350 S. rollers, cae. 1 28 Plat'd w're, cs. 13 541 Revolvers, cs. 2 221 Gop. mat., bgs 794 2,310	Ptim., gals.135,008 15, Guns, cs 5 Guns, cs 5 Car wheels 52 Iron safe 1 Rifles case 1 Ag. imp.,pkgs . 58 Agate ware, cs . 3 Saws, cs 2 Boiler tubs,bdls . 31 Hdw., pkgs 597 Mach y, pkgs . 110 Nails, kegs 51 Shoe nails,bxs 49 Clocks, cs 107 Mf. iron, pkgs . 11 Pumps, pkgs . 11 Irons, cs 111 Scales, cs 11 Scales, cs 3 Tacks, cs 3 Cutlery, cs 8 W. mill ms., cs . 7 Sew. ma., cs 148
7965 37 110 3761	Ptlm., gals.349,409 30,832 **Stockholm.** Ptlm., gals.114,485 12,970 **Stettin.** **Ptlm.gls.1,225,586 104,787 **Amsterdam.** **W. mills, case. 1 40 Ptlm., gals.398,998 34,654 **Liverpool.** **Ag. imp., pkgs 550 11,153 Sew. ma., cs. 58 1,330 Hdw., pkgs. 59 1,838 Clocks, pkgs. 201 3,715 Mach'y, pkgs. 24 1,350 Nalis, pkgs. 24 1,350 S. rollers, cae. 1 28 Plat'd w're, cs. 13 541 Revolvers, cs. 2 221 Gop. mat., bgs 794 2,310	Ptim., gals.135,008 15, Guns, cs 5 Guns, cs 5 Car wheels 82 Iron safe 1 Rifles case 1 Ag. imp.,pkgs 58 Agate ware, cs . 8 Saws, cs 2 Boiler tubs, bdls 31 Hdw., pkgs 9 Mach'y, pkgs 10 Nails, kegs 5 1 Shoe nails,bxs 49 Clocks, cs 107 Mf. iron, pkgs 101 Pumps, pkgs . 14 Irons, cs 111 Scales, cs 9 Cutlery, cs 88 W. mill ms., cs . 7 Sew. ma., cs 143 Light. rods, cs 9
37 3110 3761 300.	Ptlm., gals.349,409 30,832 **Stockholm.** Ptlm., gals.114,485 12,970 **Stottin.** Ptlm.gls.1,225,586 104,787 **Amsterdam.** **W. mills, case. 1 40 Ptlm., gals.398,998 34,654 **Liverpool.** Ag. imp., pkgs 550 11,153 Sew. ma., cs. 58 1,330 Hdw., pkgs 99 1,838 Clocks, pkgs 901 3,715 Mach'y, pkgs 24 1,355 Mach'y, pkgs 24 1,255 Mach'y, pkgs 1 50 S. rollers, cae. 1 28 Plat'd w're, cs. 13 541 Revolvers, cs. 2 221 Cop. mat., bgs 794 2,310	Ptim., gals.135,008 15, Guns, cs 5 Guns, cs 5 Car wheels 52 Iron safe 1 Rifles case 1 Ag. imp.,pkgs . 58 Agate ware, cs . 3 Saws, cs 2 Boiler tubs,bdls . 31 Hdw., pkgs 597 Mach y, pkgs . 110 Nails, kegs 51 Shoe nails,bxs 49 Clocks, cs 107 Mf. iron, pkgs . 11 Pumps, pkgs . 11 Irons, cs 111 Scales, cs 11 Scales, cs 3 Tacks, cs 3 Cutlery, cs 8 W. mill ms., cs . 7 Sew. ma., cs 148

Cases, 14 Casks, 18 Strips, 24 Old leaf spring, lot Tires, 2 Wheels and axles, pairs, 2 Fence wire ends, bdls., 449	Fenezuela. Quan. Val. Mf. iron, pkgs 1 24 Machy., pkgs 6 567 Sew. ma., cs. 6 108 Ptlm., gals., 21,853 2,429 Hdw., pkgs. 75 835 Contrat America.	Sew. ma., cs. 60 Clocks, bxs. 11 Cutlery, cs. 15 Ag. imp., pkgs 114 Ptlm., gals. 20,000 Pumps, pkgs. 7
Metals. ank of Montreal. Tin plates, bxs., 1057 aring Bros. & Co. Tin plates, bxs., 2262 artlett L. A. Cartridges, box, 1	Hdw., cs	Clocks, pkgs. 92 Ag. imp., pkgs 182 Mach'y, pkgs. 216 Hdw., cs. 47 S. fixtures, cs. 10 Wringers, case 1 Scales, bxs. 59 Pumps, pkgs. 11 Bristol.
rooks Robert & Co. Tin taggers, bys., 213	Scales, cs 3 48 Horse nails, pkgs 4 77	Ag.lmp.,pkgs. 61 Mach'y, pkgs. 9

1	Clocks, pkgs 8 194 Hdw., pkgs 5 58	Hdw., es.
2	Santander. Ptlm., gals.225,000 23,000	Mf. iron, p
	Porte Rico.	Nave
	W. closets 6 30 Tacks, case 1 20 Nails, cs 7 50	Clocks, pl. Hdw., cs.
}	Clocks, cs 4 86 Iron safe 1 200 Sew. ma., case 1 24	British Ptlm., gal British
,	Pumps, pkgs 4 45 Shears, cs 4 323 Steel, bdls 2 68	Hdw., pk Nails, keg
,	Ptim., gals 83,689 4,893	Cot. gin, o

,	Metals.	Ox shoes, cs 20 250)
		Mf. iron, pkgs. 97 911	
9	Bank of Montreal.	Zinc, cks 2 49	
	Tin plates, bxs., 1057	Ptlm., gals 140 14	
	Baring Bros. & Co.	Sew. ma., cs. 6 100	
	Tin plates, bxs., 2262	Nails, kegs 3 24	
	Bartlett L. A.	Iron, bars 15 40	
	Cartridges, box, 1	Cutlery, cs 8 120	
	Crooks Robert & Co.	Scales, cs 3 43	
	Tin taggers, bxs., 213	Horse nails, pkgs 4 77	
	Dickerson, Van Dusen &	Corunna.	1
ş	Co.	W. closets, case 1 87	1
	Tin plates, bxs., 887	Clocks, pkgs 8 194	
	Erie and Great Western Dispatch Co.	Hdw., pkgs 5 58	
	Tin plates, bxs., 1922	Santander.	1
	Hall Win. & Co. Tin plates, bxs., 596	Ptlm., gals.225,000 23,000	
•	Jackson R. D. & Co.	Porto Rico.	1
	Stereotype plates,	W. closets 6 30	1
	cs., 25	Tacks, case 1 20	1
	Meyer G. A. & E.	Nails, cs 7 50	1
	Zinc oxide, bbls., 100	Clocks, cs 4 86	1.
	Naylor & Co.	Iron safe 1 200	1
-1	Tin sheets, cs., 61	Sew. ma., case 1 24	1
	Phelps, Dodge & Co.	Pumps, pkgs 4 45	
	Tin plates, bxs.,	Shears, cs 4 323	11
1	19,883	Steel, bdls 2 68	1
-1	Black taggers, bxs.,	Ptim., gals. 33,689 4,893	L
	159	Mf. iron, pkgs 139 1,378	
	Rivera J. de & Co.	Ag. imp., pkgs 30 679	
	Copper, tes., 100	Hdw., pkgs 25 660	
	The American Meter Co.	Nails, kegs 125 403	
1	Tinned plates, cs., 240	Mach'y, pkg 1 17	
	Vincini J. B. & Co.	Yel. metal, case 1 70 Saws, cs 4 41	1
	Old bells, 2 Order,	Saws, cs 4 41 Chili.	1
	Tin plates, bxs.,		1
1	18,804	Mach'y, pkgs. 15 434	
	Tin ingots, 50	Hdw., pkgs 94 1,262	1
	Spelter plates, 6350	Ag. imp., pkgs 63 423	13
	Tin slabs, 1052	Cartridges, cs 12 210	Ľ
1	Tin and tin plates,	Mach'y oil, es. 11 68	1
1	bxs., 1100	Iron safes, 4 813	1
		Cutlery, case 1 17	1.

	Į.		bxs., 1	1100	P	l
8	of	hard	ware	and	metals	1
		35			- F-Y	1

Danalos, 100	Charles & a v.	0
The total imports of har	dware a	nd metals
for the week ending May	2, wer	e as fol-
lows:		
	Quantity	y. Value.
Antimony	157	\$9,345
Anvils		2,852
Brass goods		5,131
Bronzes		1,789
Chains and anchors		255
Cloeks	49	5,201
Copper		6,989
Cutlery		46,542
Guns	89	13,375
Hardware	6	1,191
fron, pig, tons	5,661	86,658
Iron, sheet, tons	24	1,970
Iron, ore, tons	2,612	8,131
Iron tubes		185
Iron, other, tons	2,361	80,618
Lead, pigs	1,295	3,853
Machinery	289	18,625
Metal goods	. 294	24,658
Nails	125	2,330
Needles	80	11,716
Nickel	. 17	8,815
Old metal		315
Platina	8	7,062
Plated ware	. 8	a 406
Percussion caps	. 47	8,398
Pins	7	984
Saddlery	14	1,703
Steel	79,599	106,560
Tin, boxes		181,249
Tin, 2,135 slabs		25,978
Wire	828	9,108
Zinc	82,687	8,022
Zinc oxide	706	7,462

inc oxide					706		7,46
The following is	a	col	mį	aris	on	with	pre
rious dates:		r th		18 w		Sar	me
utlery, pkgs lardware, pkgs		128		1	,797 287		2,609
					400		0.000

itlery, pkgs ardware, pkgs	128	1,797	time
on, R. R., bars ad, pigs eel, pkgs n, bxs n slabs, lbs	39,290	9,422 15,563 396,003 594,407 6,275,616	1,090 590 7,540
DW	DODA	nei	

The following v

ware, Iron, Macl the Port of New

XP	DRT	rs.				
vere	the	Expo	rts	of :	Hard	-
hiner	y,	Metal	s, &	cc.,	fron	n
York	t, fo	r the	wee	k e	ndin	g

one rose or rion ross	,
May 6, 1884:	
Dutch West Indies.	London.
Quan. Val.	Quan. V
Windlass 1 841	Clocks, pkgs 8 Guns, cs 30 5,
Ptlm., gals 370 41	Scabbards, cs. 2
Dutch Guiana.	Per. caps, cs 2
Ptlm., gals5000 625	Mach'y, pkgs. 61 2, Cartr'ges, cse 1
Dutch East Indies.	Pumps, pkgs. 14
Ptim.,gals.781,560 79,491	S. rollers, cse. 1
Hamburg.	Wringers, cs 3 Pib. matl., cse 1
Hdw., cs 202 3,592	Ptlm., gals. 231,582 22,
Ag. imp., pkgs 47 1,088	Hdw., pkgs 100 2,
Mach'y, pkgs. 17 2,508 Tacks, cs 18 172	Metal, cs 40 Bayonets, cs 6 1,
Ptlm. gls.2,294,925 203,091	Bayonets, cs. 6 1, Em'ty shells, cs 300 6,
Clocks, pkgs., 64 986	Ag imp pkgs 514 14

Bremen.	Cid
Vash. ma., cse. 1 20	Sca
g. imp.,pkgs 231 2,595	
tg. prs., bxs. 4 378	Hd
tlm. gls.1,488,475 121,128	8. 1
rass gds., cs. 2 44	Ne
lach'y, pkgs. 3 300	Ser
Idw., pkgs 22 934	Sea
If. iron, pkgs 4 167	Ma
Antwerp.	Ca
ow ma on 145 8 060	Ag

998	34,654	Hdw., pkgs 58	
ool.		Mach'y, pkgs. 11 Nails, kegs 5	
560	11,158		9
58	1,880	Clocks, cs 10	
89	1,838	Mf. iron, pkgs 10	
201	8,715	Pumps, pkgs 1	4
24	1,255	Irons, cs 11	1
1	50	Scales, cs	2
1		Tacks, cs	2
18	541	Cutlery, cs 8	8 2,
2	221	W. mill ma.,es	7
794	2,310	Sew. ma., cs 14	8 2,
1	15		8
34	3,700	Wire cloth, cs.	8
- 9	194	Firearms, cse.	1
	- 2		

Clocks, pkgs. 19 Corunna. Gibraltar. Brunswick. pkge. 1 10 tons. 44 963 va Scotia.

Cutlery, case. 1
Sew. mch., cs. 4
Nails, kegs. 108
Ptlm., gals. 20,340
Mf. iron, pkgs 73
Revolvers, cs. 5
Tacks, cs. 81 Genoa.

Anvils Sew. mch., case Pumps, pkgs. Hdw., cs..... Naples. Refrig'r, case. Leghorn. Hdw., cs. Japan. Firearms, case 1 United States of Colombia. Mach'y, pkgs. 144 Cutlery, pkgs, 50 Ptlm.. gals.. 14,444 Mf. iron, pkgs 380 Cartridges, case 1 Firearms, cs... 7

Shot, bxs..... Steel, bdls.... Tubes 40
Agate ware, es 2
Needles, es 5
Anchors 6
Iron, bdls 115
Cop, goods, es 4
Nails, kegs 182
Iron safes 6
Water closets 4
Pumps, pkgs 9
Swords and belts, es 3
Brass g'ds, case 1
Revolvers, es 6
Tacks, case 1

Hayti. Sew. ma., cs.. 16 Cutlery, case.. 1 Nails, kegs... 29 Ptlm., gals...1487 Uruguay.
Hdw., cs...... 229
Mach'y, pkgs. 4
Shoe nails, pkgs 15
Irons, cks..... 10

Coal.

The Anthracite Coal trade is quiet. Production at the mines is suspended for the whole of this week, and nothing will be done on the 22d, 23d and 24th. With this restriction it is believed that normal relations between supply and demand will be maintained. Prices are necessarily irregular under present conditions, but for the different sizes may be quoted \$4 @ \$4.55 alongside in New York. The Coal managers express a belief that business will continue much as now until the usual start.

VALPARAISO, March 3, 1884.—Copper.—The market a fortnight ago opened duil and weak, but soon after better cable news dropped in, and a sales 26,900 quintals, a portion thereof at \$10.75. The closing figure equal to £54, 10/. Nitrate.—The decline in exchange stimulating a better demand, the price has advanced from \$2.173\(\) to \$2.23\(\) to \$2.23\(\) to \$2.23\(\) to 32.23\(\) to 32.23\(\) under present conditions, but for the different sizes may be quoted \$4 @ \$4.55 alongside in New York. The Coal managers express a belief that business will continue much as now until the usual start.

Newcastle, N. S. W., March 12, 1884.—Coal.—Exportation has steadily increased from the soon after better cable news dropped in, and a sales 26,900 quintals, a portion thereof at \$10.75. The coal figure equal to £54, 10/. Nitrate.—The decline in exchange stimulating a better demand, the price has advanced from \$2.173\(\) to \$2.23\(\) to the United States; loading \$2.50\(\) for Europe, and 49.0 for America. Charters and the price has advanced from \$2.173\(\) to \$2.23\(\) to the United States; loading \$2.50\(\) for Europe, and 49.0 for America. Charters and the price has advanced from \$2.173\(\) to the United States; loading \$2.50\(\) for Europe, and 49.0 for America. Charters and the price has advanced from \$2.173\(\) to the United States; loading \$2.50\(\) for Europe, and 49.0 for America. Charters and the price has advanced from \$2.173\(\) to \$2.23\(\) to the United Sta continue much as now until the usual start in August. The Philadelphia Ledger says:

Newcastle, N. S. W., March 12, 1884.—Coal. Exportation has steadily increased from this poor of late years, being as follows: in August. The Philadelphia Ledger says: "Stocks are accumulating, owing to the scarcity of vessels, but chiefly to the back wardness of orders. The former difficulty, however, will probably be soon remedied, as however, will probably be soon remedied, as 2,814 the early arrival of a fleet of schooners is looked for. Freights are higher, vessels are looked for. Freights are higher, vessels are loading quicker, and there is an increased number of small orders from the East." The decreased demand this year compared with last, about 700,000 tons, has been met by a corresponding curtailment at the mines.

Bituminous Coal is slow of sale, and is quoted, both for Cumberland and Clearfield, about \$3.75. The total amount of Anthracite mined thus far in the year 1884 is 7,836,353 tons, compared with 8,548,866 5,000 tons for the same period last year. Of Bituminous 1,559,938 tons have been sent to market this year, which is about 40,000 tons in excess compared with 1883.

Foreign Markets.

FRANCE.

Paris, April 20, 1884.—Metals.—Business in general has been looking up, and with it the Metal trade, which has been more active at a higher range of prices. We quote at the close, § 100 kg., in frances: Copper.—Chili Bars, 148.20 @ 147.25; Ingots and Slabs, 185; Best Selected, 160, and Purc Corocoro Ore, 150. Tin.—Banca, 237.50; Straits and English, 250.25, and Australian, 227.35. Lead, 37.75 @ 28.75, and Spelter, 88.75 @ 39.50. Fron.—Our market has been strengthened by the improvement in the Northern Department, where Merchant Iron cannot be had any more under 15 france at the rolling mulis; those in this city have, however, not put up prices yet, which is due to the accumulation of stocks while the critical state of affairs here lasted. Large public works, though pro-

. Val. jected, have not yet commenced, so that it would be bad policy to enhance the price of Finished Iron 316 before we are fairly started once more. Meanwhile, 551 the ensuing figures continue to rule: Merchant and 2,420 Flooring, 15 @ 16; Charcoal do., 24; Sheet, 21 @ 2,225 25, and Wire Nails, No. 18, in bulk, 27. The situation in the Northern Department has vastly improved; a good run of orders has been pouring in, 1,665 4,769 4,159 4,

BELGIUM.

Me Brunsatek.

Mf Iron, piges 1 105
Pig Iron, top. 44 905

Moven Scotia.

Clesce, pige. 1 135
Holv., cs. 5 05
British East Indies.
Pilm. gals. 640,000 68,000
British West Indies.
Hdw., pkgs. 8 125
Mais, kegs. 8 125
Mais, kegs. 8 125
Mf. Iron, pkgs. 2 3 23
Pistols, case. 1 15
Firearms, cs. 2 195
Saw. 2 195
Saw. 2 195
Saw. 3 195
Mf. Iron, pkgs. 3 195
Saw. 3 195
Mf. Iron, pkgs. 3 195
Mf. Iron, pk

AUSTRIA.

AUSTRIA.

VIENNA. April 22, 1884.—Iron—The revival in the Iron trade has made some further progress, and there is now general activity and considerable Bldw., cs. ... 10

Bdw., cs. ... 10

China.

Muskets, case. 1

Mf. iron, pkgs. 38

Ptlm., gals.384,809

Ptlm., gals.384,809

Rise, cs. ... 10

2,064

Seville.

Ptlm., gals.191,500 20,000

Ptlm., gals.191,500 20,000

AUSTRIA.

VIENNA. April 22, 1884.—Iron—The revival in the Iron trade has made some further progress, and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable tooys and there is now general activity and considerable too the publisher is now general activity and considerable too the publisher is now general activity and considerable too the publisher is now general activity and considerable too the publisher is now general activity and considerable too the publisher is now general activity and considerable too the publisher is now general activity and considerable too the publisher is now general activity and considerable too the publisher is now general activity and considerable too the publisher is now general activity and considerable too the publisher is now general activity and considerable too the publisher is now general activity and considerable too the publisher is n

Tons.

1870 748,795 1871 368,176 1872 870,710 1873 963,519 1874 1,117,345	1877 1,128,24 1878 1,261,219 1879 1,172,04 1880 1,038,229 1881 1,38,666
1875	1882 1,415,996 1883 1,463,286 Total 8,817,668
Increase in seven years, 3 Honolulu, San Francisco Batavia, Bombay, Hongk mea (New Caledonia).—A	1 %, The Coal is shipped b, Valparaiso, Mauritius, ong, Haizhong and Nou-

EAST INDIES.

Penano, March 25, 1884.—*Tin*.—Receipts during the fortnight have been 7300 picus, and trade has been lively. The market, meanwhile, gave way from \$26 to \$25.00, in order to finally rise to \$25.50, the closing figure. Sales, 5200 piculs taken by Europeans, and 3900 for China. *Exchange* gave way \$40, closing, four months' bank, firm at 3/8½.—*Schmidt*, *Kustermann & Co*.

A dispatch from Montreal states that the Canadians are considerably exercised over the steady flow of their citiens to the United States. The exodus of French Ca-nadians from Montreal and the city of Quebec to the Eastern and Western States—especially to the former—is vastly increasing.

15.00

8.00

Trade Report.

General Hardware.

There is little or no change in the condition of the Hardware market. Changes in prices are few, and the trade is characterized by the same moderate but steady demand that we have had to report of late. The failure of the Marine Bank on Tuesday has naturally been the subject of conversation, but it has had no other effect whatever on the trades we represent, and is nowhere considered a symptom of any general weakness or danger in the financial situation.

We are pained to record the death of Mr. Henry Stanley, of New Britain, Conn., which occurred at his home, in that city, on Saturday, 3d inst. Mr. Stanley was a native of New Britain, and had passed his entire life in the place of his birth, being 76 years old at the time of his death. He was one of the pioneers in the early manufacturing enterprises of the town, and during his business career has been identified with many of the largest concerns doing business in Connecticut. Mr. Stanley was president of the Stanley Rule and Level Company, of the Stanley Works, and of the American Hosiery Company, all of New Britain. He sustained among his business associates and in the community the character of a courteous, Christian gentleman, and his death will cause deep regret to a wide circle of friends.

James M. Weed, well known to many of the older members of the trade, died a few days ago in Utica. He was a member of the firm of Ruthven & Weed, at the breaking out of the war engaged in the Southern jobbing business. In 1861 he moved to Utica, where he resided until the time of his death. GALVANIZED SHEET IRON.

The convention of manufacturers of Galvanized Sheet Iron, held in Pittsburgh the 30th ult., of which a brief notice was given in our last issue, resulted in the formation of a permanent organization, with Alan Wood, of Philadelphia, as president; Geo. F. Mcof Pittsburgh, vice-president, and H. C. Mechling, of Pittsburgh, secretary and treasurer. Rules and regulations for the government of the association were also

adopted. Every manufacturer of Galvanized represented at this meeting. The first result of this meeting has been the establishing of a fixed price for Galvanized Sheets in place of the very low, uncertain price that has ruled for some time past. The rates agreed upon are 50 per cent. discount for the retail trade and 55 per cent. for the jobbing.

NUTS AND BOLTS. The meeting of the Nut and Bolt Associa tion, held in Pittsburgh last week, was the most important meeting of the manufacturers of these articles held for some years. During the years of depression and falling prices since 1880 the association has had a than the "Genuine," and are subject to the nominal existence, but its meetings have been few and far between and of little effect upon the trade. A few months since, a meeting was held at which a minimum price on Bolts was agreed to. This has been well maintained. It became apparent, however, that some further steps must be taken to fix and maintain prices upon a paying basis, and for some weeks past the manufacturers of these articles have been considering schemes for a closer organization of the trade. As has already been announced, at the Pittsburgh meeting various schemes were pro These were referred to a committee with instructions to report at the June meet ing. In the meantime, the old rates were maintained on Bolts, Nuts being still left

without an association price.

NAILS A fair demand is reported for the past 356 week. In addition to a satisfactory local that section not yet having been able to stock up sufficiently to meet all the requirements of their customers. Considerable trading is done among dealers, in consequence of the broken assortments in local warehouses and the difficulty in getting prompt shipments from some of the factories represented here. Prices show no improvement over those pre viously reported, notwithstanding the light stocks, as purchases are confined to actual wants, and there seems to be an absence of It is sold at \$7 per dozen, discount 40 per speculative buying, or even of more than a limited anticipation of the closest needs. No upward movement in prices is expected unless the threatened Western labor troubles are actually precipitated, in which case the East would undoubtedly be called upon to supply the West to some extent. The contingency is a doubtful one, and is merely referred to incidentally. If there is no stoppage of Western facteries, there is some apprehension that competition from that quarter will be felt before many days. Low prices now rule at points where Eastern and Western manufacturers meet on common ground, and, as the days pass by, the huge production of the West will make itself felt still further East. We continue quotations on the basis of \$2.50 for large lots, and \$2.60 @ 2.65 for small lots.

6,147,007 kegs in 1882. The production in the several States in the two years mentioned

was as follows:	1882, kegs.	1883, kegs.
** 5		7,300
Maine		
Massachusetts		677,540
New York	166	14,768
New Jersey	360,340	338,107
Pennsylvania		2,430,552
Virginia		161,279
Alabama		20,000
West Virginia		1,327,484
		144,686
Kentucky	a med A a m	212,358
Tennessee		1,249,700
Ohio		
Indiana	394,682	413,380
Illinois	462,956	596,108
Nebraska	60,000	65,000
Colorado		62,969
California		111,500
Total	6,147,097	7,762,737
BARB W		
m1 1 4 f D L 1	Wine how w	dommono

The market for Barb Wire has undergon no change since our last report. Manufac turers are still engaged in working up old orders, and a sufficient demand exists to maintain prices at former quotations on new contracts. At the meeting of Barb Wire manufacturers which was held at Chicago last week, the existing prices were continued as it was deemed inexpedient to make another advance. Nothing further of public interest can be learned in reference to the proceedings at the Chicago meeting. This week, we understand, a meeting of manufacturers has been held at St. Louis, but its purpose and results have not yet been made public. We continue to quote prices as follows: Four-point Galvanized, 6 cents per pound for carload lots, and 61/8 cents per pound for Thickset, with the usual advance for smaller quantities; Painted, I cent per pound less.

The File Manufacturers' Association held a meeting last week at the Astor House, in The meeting was very fully this city. attended, all the large manufacturers in the country, with a single exception, being represented. Present prices were confirmed, and the committee previously appointed denominations were ordered to report at the annual meeting to be held in June.

COES' WRENCHES. Durrie & McCarty, agents for L. Coes & Co., and John H. Graham & Co., agents for A. G. Coes & Co., under date of the 1st inst... announce that they are instructed to quote Coes' "Genuine" Screw Wrenches, of either make, at 60 per cent. discount from list. "Mechanics" Wrenches, made by L. Coes & Co., and similar quality by A. G. Coes & Co., will continue to rate at 10 per cent. less Sheet Iron in the United States but one was than the "Genuine." A special discount of 10 per cent. will be allowed on specified orders for 50 dozen, for immediate shipment. Terms, 90 days, or 3 per cent. discount for the quantity will be entitled to the extra ance of season ending June 30, 1884. Above the Coes "Genuine" Pattern, and not the similar quality made by A. G. Coes & Co., the price of either being 10 per cent. less same quantity schedule.

AXES. The American Axe Manufacturers' Association, which was in session when our last issue went to press, adjourned without taking any action upon prices

On another page we give illustrations and descriptions of a new Brass Padlock and a Flower and Grape Gatherer, made by P. Lowentraut, Newark, N. J. The price of the latter is \$9 per dozen, and of the Padlocks as follows, both being subject to 331/3 per

COL	at. d	iscoul	at:					
136	inch	Lock,	no C	hain.	two-keye	d	\$9.50	per doz
132	**	6.6	with	6.6	66		10.75	66
5	44	4.6	BO	6.6	44		12.00	6.6
2	8-6	6.6	with	6.6	6.6		18.50	6.6
216	6.6	6.6	no	44	6.6		16.00	6.5
212	8-6	64	with	66	44		18.00	4.5
8."	46	6-6	no	4.8	9.6		24.00	64
8	6.6	6.6	with	44	44		26.00	40
316	44	64	no	64	64		36,00	44
816	5.6	6.6	with	4.6	6.6		39.00	64

Maltby, Curtiss & Co. desire us to make trade, export orders were more numerous the following corrections of prices in the list than usual, and there was also a call for of Revolvers given in our notice last week: Norwich Arms Company—32 Long Caliber, Square Saw Handle, Wood Stocks, Knuried Cylinder, Round Barrel, \$1.45, instead of \$1.63. Metropolitan Police—32 Caliber, Rubber Stocks, Patent Safety Lock, \$6, instead of \$2.25. N/M Smith—32 Caliber, Rubber, \$2.25, instead of

The Penn Hardware Company, Reading, Pa., for whom H. L. Sise, 100 Chambers street, New York, is agent, are just putting on the market a new Lemon Squeezer called the "Penn." It is constructed of It is constructed of iron with a glass bowl, which is removable. cent

The Union Hardware Company, 79 Chambers street, New York, have just issued an illustrated catalogue of Roller Skates and Skate Fixtures which represents fully the line of these goods which they are now making, and which covers the latest and most ap proved styles.

R. B. Hugunin, Hartford, Conn., has made some modifications in his list prices, under date of the 5th inst. The following are the new and reduced prices:

Price List Hugunin's Sash Balances.

Improved Screw Balances, Malleable (three sizes). o. 1, large, for 30-B Sash and under.... 2, medium, for 30-B Sash and under.... 3, small, for 16-B Sash or under.... Same, in Gray Iron, 15 \$ less.

small lots.

From the statistics of the production of Nails in 1883, which have just been published by the American Iron and Steel Association, we learn that the total production of the country last year was 7,762,737 kegs, against country last year wa

street, New York, desire us to call attention to an error in the quotation of their Hasp Locks, which should have been quoted article. discount 30 per cent., and not 40 per cent.

The Special Notice which will be found on another page concerning the sale of the stock and business of R. Sellew & Co., St. Louis, Mo., is worthy the attention of our readers. This well-known house wish to dispose of their long-established business, and we are advised that it gives a peculiarly favorable opportunity for investors who desire to engage in such an enterprise. The stock, we learn, is desirable and in good saleable condition, so that the business can be carried on without delay or interruption.

In our notice last week of a large order for Cross Cut Saws and Handles received by E. C. Atkins & Co., Indianapolis, the number of Handles was by mistake given as 400 pairs, when it should have been 4000.

The spring announcement of Dame, Stoddard & Kendall, Boston, appears in their usual tasteful style. It calls attention to the extent and completeness of their assortment of goods for which they have drawn upon all the principal manufacturers in this country as well as Europe. They make a specialty of Split Bamboo Rods, including a large line of Leonard's, as well as cheaper goods which they guarantee to be thoroughly good. They have manufactured for this eason a special line of Wooden Rods of to the usual styles, they wish to draw the attention of the trade to their new Boston Fly

One of the most satisfactory catalogues in connection with the Hardware business is that which has just been issued by the

CORBIN CABINET LOCK COMPANY. New Britain, Conn., and 24 and 26 Murray street, New York City. It is a handsome upon universal cuts for files of different folio volume, well printed and fully illustrated, exhibiting the line of Cabinet and Trunk Hardware of which they are the manufacturers. It opens, after a complete index, with price list of Cabinet Locks, Trunk Locks, Keys and Blanks, Extra Keys, Escutcheons, &c., which also serves as an index, as, besides the number of keys and the price, it gives also the page on which the Lock is described. This is followed by a comparative list of Cabinet Locks, numerically arranged, in which the corresponding numbers of the Eagle and Gaylord are given, following the order with the Corbin numbers. This is followed by two other similar lists, which are arranged according to the Eagle and Gaylord numbers re cash in 10 days. Parties having purchased spectively, but a special feature of this catalogue, and one which will commend it to discount on subsequent orders during bal- the trade, is the system of numbering the Locks according to which it is arranged. quantity must be taken from either one or Numbers ranging from No. 1 to No. 899 are the other manufacturer, and includes only used for Iron Cabinet Locks, and the same numbers with (o) cipher prefixed for Brass "Mechanics," made by L. Coes & Co., or a Cabinet Locks. It will be perceived that in this way a great many numbers are saved, and those which are used are more easily comprehended. It is mentioned also that in packing these manufacturers label Iron Locks with a green label, Brass Locks with a yellow label, and Locks 24, keved, with a red label, which label also bears a large Corbin number, and also an Eagle and Gaylord corresponding number, for purposes of distinction and comparison. But the system of numbering is carried still further in the classification of the different kinds of Locks, so that the trade when familiar with the method adopted by these manufacturers will know what kind of a Lock is indicated by a given number, and also where in the catalogue to look for the given kind of lock. The Locks are classified and numbered in the following manner:

Chest Locks Iron, from No. Brass, " No. Cupboard Locks. | Iron, "Brass, " Drawer Locks... | Iron, " No. 400 to No. 6699 Wardrobe Locks. | Iron, " No. 700 to No. 799 Brass, " No. 0700 to No. 0799 Miscell. Locks... | Iron, " No. 800 to No. 899 No. 0800 to No. 0800 Trunk Locks are numbered from 1000 to 1400. Turning to the catalogue, it is interesting

to perceive the fidelity and care with which this arrangement is carried out, and to observe the resulting convenience. Thus, pages I and 2 of the catalogue give illustra tions, prices and descriptions of the complete line of Brass and Iron Single Link Back Spring Chest Locks. These Locks also are ar ranged systematically, beginning with the smallest and cheapest goods and gradually rising to the largest and best. The convenience of a method of designating Brass Locks by a prefixed cipher is seen throughout the cataogue, and also the further convenience which results from the facility with which it is ascertained whether or not a given pattern of Lock is made in Iron or Brass. Thus, the first number in the book is or, which indicates that a Brass Lock is made corres ponding to the description; but, as it is accompanied by no Lock No. 1, it is seen at a glance that there is no corresponding Iron Lock. But for a complete appreciation of the line of goods represented and arranged we shall have to refer our readers to the catalogue

In their opening circular the manfacturers direct special attention to their Solid Nickel Bit Keyed Locks and their Fancy Bronze Trunk Locks, of which the catalogue gives an exceedingly attractive line. It presents also a new line of Patented Trunk Locks, combining a Trunk Lock and Catch, which for strength, durability and workmanship,

The Stoddard Lock Company, 104 Reade it is claimed, cannot be equaled. The Monitor Trunk, of which a number of styles are made, is, we believe, an entirely new

THE VALE & TOWNE MEG. CO. of Stamford, Conn., have recently made some changes in the division of their exec utive work. Mr. Schuyler Merritt, who for the last six years has been the secretary, has been also appointed to the office of general manager, and will hereafter have direction of all outside business and the general correspondence, including an advisory charge of the company's offices at New York, Chicago, Boston and Philadelphia. These offices are each in charge of a responsible manager. and all dealings can be had with them with the same-and, to parties near by, with even greater-advantage than with the Stamford office. Experience has shown that this fact is appreciated by customers, and the business of these offices has grown to such an extent as to make it desirable to give greater unity and efficiency to their operations. It is believed that this will be accomplished by the supervision of the general manager, who will give particular attention to increasing the facilities of the several offices, and thus rendering them even more convenient and advantageous to customers than at present. The change above noted has become desirable also in order to enable the treasurer of the company, Mr. George E. White, who has heretofore conducted much of the corres-Lancewood and Ash, which they claim to be well made and finely finished. In addition pondence, to devote his whole attention to the company's financial affairs and accounts, the company's financial affairs and accounts, including, of course, their financial relations with all customers. The new arrangement took effect on May I, and will undoubtedly tend to promote efficiency in the company's

> various offices. At the annual meeting of the stockholders of the Yale & Towne Manufacturing Company, held on April 24, at the company's office in Stamford, Conn., the following gentlemen were re-elected directors for the ensuing year :

> relations with its customers at all of their

Henry R. Towne, Stamford, Conn. Schuyler Merritt, George E. White, 66 M. F. Merritt, Albert Kelley, New York. Beauveau Borie, Philadelphia, Thomas F. Keating, New York. At a subsequent meeting of the directors he following officers were elected: Henry R. Towne, president. Schuyler Merritt, secretary. George E. White, treasurer. Thomas F. Keating, assistant treasurer.

William T. Payne, assistant secretary. RESERVOIR VASES The following is the price list of the goods manufactured by C. E. Walbridge, Buffalo, N. Y., which, with the descriptions, will be of interest to those who desire such seasonable goods, and will serve as a partial guide to the styles and sizes, some of which are repre sented in his advertisement on page 34. The list is subject to discount 30 per cent:

Bronzed t5—Hight, 46 inches; diameter of Vase, 28 inches; Reservoir capacity, 234 gallons. Price, painted white Bronzed

Brunzed

1.— Hight, 50 inches; diameter of Vase,
1814 inches; width, including Handles, 34
inches; capacity of Reservoir, 414 gallons.
Price, painted white. Bronzed , 2—Hight, 42 inches; diameter of Vase, 1836 inches; width, including Handles, 34 inches; capacity of Reservoir, 446 gallons. Price, painted white.

Price, painted white.

Bronzed.

8.2—Hight, 43 inches; diameter of Vase, 184 inches; width, including Handles, 31 inches; capacity of Reservoir, 4½ gallons.

Price, painted white.

Bronzed.

0.1—Hight, 47 inches; diameter of Vase, 24 inches; width, including Handles, 35 inches; capacity of Reservoir, 3½ gallons.

Price, painted white.

Bronzed.

M.1—Hight, 43 inches; diameter of Vase, 24 inches; capacity of Reservoir, 3½ gallons.

Price, painted white.

Bronzed.

G.1—Hight, 64 inches; diameter of Vase, 28 inches; width, including Handles, 38 inches; base, 23 inches square; capacity

Bronzed. (5 1—Hight, 64 inches; diameter of Vase, 23 inches; width, including Handles, 38 inches spare; capacity of Reservoir, 234 gallons. Price, painted of Reservoir, 25g gallons.

H 1—Hight, 55 inches; diameter, 28 inches; base, 23 inches square; Reservoir, 25g gallons.

G 2—Hight, 57 inches; diameter of Vase, 28 inches; width, including Handles, 28 inches; base, 21 inches square; capacity of Reservoir, 23g gallons. Price, painted white.

White white white white was a paint of the servoir, 2% gallons. Price, painted white.

With the servoir, 2% gallons. Price, painted white.

With the servoir with including Handles, 28 inches; width, including Handles, 28 inches; base, 21 inches square; capacity of Reservoir, 3% gallons. Price, painted white. white 3—Hight, 43 inches; diameter of Vase, 28 inches; width, including Handles, 38 inches; base, 28 inches square; capacity of Reservoir, 3% gallons. Price, painted

of Reservoir, 3½ galions. Price, painted white

H 4—Hight, 27 inches; diameter, 28 inches; base, 21 inches square; Reservoir, 3½ gallons. Price, painted white.
H 3—Hight, 34 inches; diameter, 28 inches; base, 22 inches square; Reservoir, 3½ gallons. Price, painted white.

E 1—Hight, 48 inches; diameter of Vase, 22 inches; width, including Handles, 30 inches; base, 17 inches square; capacity of Reservoir, 1½ gallons. Price, painted white. white.
Fi-Hight, 41% inches; diameter of Vase, 22 inches; base, 17 inches square; capacity of Reservoir, 11% gallons. Price,

painted white.

3-Hight, 41 inches; diameter of Vase,
22 inches; width, including Handles, 30
inches; base, 14 inches square; capacity
of Reservoir, 11/2 gallons. Price, painted 11.00

white.

F2—Hight, 3H4 inches; diameter of Vase, 22 inches; base, 14 inches square; capacity of Reservoir, 1½ gallons. Price, painted white.

E4—Hight, 37 inches; diameter of Vase, 22 inches; width, including Handles, 30 inches; base, 14 inches square; capacity of Reservoir, 1½ gallons. Price, painted white.

E 3—Hight, 3416 inches; diameter of Vase, 22 inches; width, including Handles, 30 inches; base, 17 inches square; capacity of Reservoir, 114 gallons. Price, painted white.... F 4—Hight, 20 inches; diameter, 22 inches F4—Hight, 30 inches; diameter, 22 inches; base, i4 inches square; Reservoir, 1½ gallons.
 F7: Price, painted white.
 F3—Hight, 27 inches; diameter of base, 22 inches; base, 17 inches square; capacity of Reservoir, 1½ gallons.
 Price, painted white. 10.00

inches; base, 17 inches square; capacity of Reservoir, 1½ gallons. Price, painted white

12—Hight, 36 inches; diameter of Vase, 18½ inches; capacity of Reservoir, 4½ gallons. Price, painted white.

Bronzed.

4—Hight, 31 inches; diameter of Vase, 28 inches; width, including handles, 38 inches; base, 21 inches square; Reservoir, 2½ gallons. Price, painted white.

43—Hight, 35 inches; diameter of Vase, 28 inches; width, including handles, 38 inches; base, 23 inches square; Reservoir, 2½ gallons. Price, painted white.

15—Hight, 47½ inches; diameter of Vase, 19 inches; width, including handles, 25 inches; base, 17 inches square. Price, painted white

15—Hight, 34 inches; diameter of Vase, 19 inches; width, including handles, 28 inches; base, 17 inches square. Price, painted white

15—Hight, 34 inches; diameter of Vase, 19 inches; width, including handles, 28 inches; base, 17 inches square. Price, painted white

15—Hight, 26½ inches; diameter of Vase, 26—Hight, 26—Hi ainted white.

Hight, 2014 inches; diameter of Vase, inches; width, including handles, 28 ches; base, 14 inches square. Price, inted white.

High: 344 inches 10.00 inches; base, 14 inches square. Price, painted white

1 — Hight, 3814 inches; diameter of Vase, 16 inches; base, 14 inches square; capacity of Reservoir, 1½ gallons. Price.

2 — Hight, 27¼ inches; diameter of Vase, 16 inches; base, 14 inches square; capacity of Reservoir, 1½ gallons. Price.

3 — Hight, 21 inches; diameter of Vase, 16 inches; base, 16½ inches; diameter of Vase, 17—Hight, 40 inches; diameter of Vase, 18½ inches; width, including handles, 25 inches; base, 14 inches square. Price.

2 — Hight, 28½ inches; diameter of Vase, 18½ inches; width, including handles, 25 inches; base, 14 inches square. 12-Hight, 25% inches; width, including handles, 34 inches; base, 14 inches square. Price...
3-Hight, 20 inches; diameter of Vase, 15% inches; width, including handles, 25 inches; base, 10% inches square. Price... Lawn Chair.

(These Vases are not made under the Reservoir Patent, and are not Self-Watering.)

New York Iron Market.

American Pig.-The situation presents very few new features. Sales are confined to small lots, and some dealers report very little business even on that basis. In some quarters more inquiry is to be noted, and a better feeling prevails on that account, though it remains to be seen whether this is an indication of improving business or only arises from individual necessities. Deliveries on old contracts seem to be sufficiently large to prevent accumulations of standard Irons, and prices for them are well maintained. The leading company doing business in this market report heavier deliveries at tidewater last month than in any previous month in their history. They announce that they are now out of the market for No. 1 X and Gray Forge. Both these grades of Iron are reported carce elsewhere on the Lehigh. The limited capacity of the small number of furnaces now in blast is making itself felt in this way. No. 2 X is in much greater supply, comparatively, than any of the other grades, and consequently prices are somewhat less firmly We hear of no decided change in quotations for No. 2 X, but the market for it is circumscribed, and a considerable quantity of it could hardly be sold without some concession from the terms quoted to us. The stoppage of the Hudson River stove foundries so soon after they had started up is unfortunate, as orders from that source were expected to make their appearance shortly. Outside brands are to be had in reasonable abundance and at lower prices than are asked for Lehigh Irons. Hence there seems to be no uneasiness among consumers generally about the light supply of the standard brands, though we hear of occasional offers of more than market rutes, for brands which cannot be had, by those who prefer to use Irons which they are familiar with. The following quotations represent the range of prices for standard Lehigh brands, tidewater delivery: No. I X Foundry, \$20 @ \$21, retail lots, and special brands a trifle higher; No, 2 X Foundry, \$19 @ \$19.50; Gray Forge, \$17.50 @ \$18.50. Outside brands, 50¢ @ \$1 % ton lower than these figures.

Scotch Pig.-About 1200 tons were ceived at this port during the past week Some of it had been sold to arrive, but part was disposed of from dock at low prices. In the aggregate, more sales were made last week than usual, and inquiries were received to a greater extent. It is reported that Scotch Iron is being used by foundrymen instead of No. 2 X American, as they can mix it very economically with cheap Machinery Scrap, and the present low prices of Scotch Pig are a strong inducement to consumers. We revise our quotations as follows : Gartsherrie, \$22.50 to arrive, \$21.25 from yard; Shotts, \$22; Langloan, \$22 to arrive; Carnbroe and Glengarnock, \$21.50 to arrive, \$22 from yard; Coltness, \$21.50 to arrive, \$21.75 from yard; Summerlee, \$20.50; Dalmellington and Eglinton, \$19.50;

Clyde, \$20,50. Bessemer Pig. - We are reliably in. formed that some large contracts have been closed for Domestic Bessemer, but particulars are withheld. In Foreign there are no transactions to report, quotations being nominally \$20 @ \$20.50.

Spiegeleisen.-Sales are reported of a limited quantity of 20 % Spiegeleisen at \$28. Inquiries are in the market for 30 %, but we can learn of no actual transactions in that grade. The nominal quotation for 30 % is \$32.

Bar Iron -Business in mill lots has been peculiar. Frands of undoubted excellence are in fair demand and prices are well held, 8.00 while others are sold with more or less diffi-

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Ad rated no sal

culty and at irregular prices. The distinction between good and inferior Irons is becoming plainly apparent, and low quotations are often due more to the quality of the Iron than to other causes. The aggregate transactions for the week have not been large, and most of them have been made to fill actual requirements, but in a few instances buyers have evidently been quickened by the apprehension that possibly the Western mills might be closed after June 1. As much of the Iron sold in this market is of Western manufacture, the stoppage of the mills in that section would be felt here quite seriously. The store trade is not so good as it was last month, Prices of the Burden Iron Company's specialties have been reduced, and are now quoted as follows: "Burden's Best," base price, 3¢; "H. B. and S," base price, 2.6¢. We hear of some cutting on Best Refined from store. Nominal quotations are as follows: Best Refined, from store, 2.1¢ @ 2.25¢; at mill, 1.75¢ @ 2.05¢; Common Iron, from store, 2¢@2.1¢; at mill, 1.6¢@ 1.75¢.

Structural and Shaped Iron.-Very little business is reported for the past week, but contracts for round lots of Beams are pending and may be closed at any day. Quotations are as follows: Angles, 2.4¢ @ 2.6¢ from store; Tees, 2.9¢@3¢ from store; Beams and Channels, 3.5¢ on wharf for round lots.

Plate Iron.-Business is light and prices are weak. Nominal quotations are about as follows: Common or Tank, 2.4¢; Refined, 2.7¢; Shell, 3¢; Flange, 3¾¢; Extra Flange, 41/20 @ 50

Sheet Iron .- Orders for mill lots have been quite numerous during the past few days, especially for Thin Sheets. Mills making the best grades are very full of orders, and some of the others which supply this market report their sales as having re cently been very satisfactory. Some Western mills are refusing to book orders for delivery after June 1. Prices continue as before: Heavy Sheets, Nos. 10 to 16, 2.8¢ @ 3.1¢. Light Sheets are quoted in our New York Wholesale Price List.

Merchant Steel.-The local demand is light and the outlook is not very cheerful. From near-by points we hear reports of active competition between the leading Tool Steel manufacturers, accompanied with inevitable cutting in prices. We quote local rates as follows: American Tool Steel, 101/2¢, with a concession to large buyers; Crucible Machinery, 61/2¢; Bessemer and Open-hearth Machinery, 31/4 @ 4¢; Tank Steel, 4¢; Boiler Plates, 41/2¢ @ 5¢, with extra for special sizes; English Tool, 151/2 .

Steel Rails .- We hear of sales of about 2500 tons by an Eastern mill, to go West; 6000 tons by a Northwestern mill; and 1000 tons by an Eastern mill, in small lots of 50 to 100 tons each. Some other sales have been made on private terms of which the quantities are not stated. Inquiries are still reported numerous, but in many cases they come from parties who are unable to furnish satisfactory terms of payment. Competition for fall business is more active than it was two weeks ago, in consequence of mills soliciting orders which were presumed to be out of the market for the greater part of this year. The outlook is therefore discouraging and prices are drooping. For summer delivery \$33 is quoted by Eastern mills, but on later deliveries that price is being shaded.

Wire Rods .- Very little new business is reported for the past week, but inquiries are still being made and trade is not completely stagnant, though the recent spurt in this line seems to have about run its course. Quotations for Steel Rods are unchanged, as follows: \$50 for spot lots and \$48 for future

Old Rails .- The demand during the past week has not been particularly heavy, though we hear of several transactions. Of Old Iron Rails, 300 tons were sold at \$20, f.o.b. cars Jersey City, and 100 tons at \$19, delivered at Jersey City. Of Old Steel Rails, 200 tons were sold at \$18.50, delivered in the vicinity of the buyer's works.

Wrought Scrap .- No sales and no inquiry are reported. No. 1 is held at \$22 @ \$22.50 from yard.

Metal Exchange.

We are reported the following transactions as having occurred on the floor of the New York Metal Exchange from Wednesday noon of last week to Wednesday noon of this week:

		WEDNE	SHDA	r, April au	-second	Can	
100 10 10	tons	Straits	6.6				188
10	tone !	Straits		June	-		. 1885
10	AL .	81		June			.18871
10	44	84	63	June			.1805
-			1	FRIDAY, MI	y 2.		
1	No tr	ansacti	ons.				
			8.	TURDAY, N	lay 3.		
100	tons	Pig-Ir	on C	ertificates	. Februar	V	818.50
100		45		66	10.0		18,624
100	0.0	6.6		4.0	6-5		18.623
10 10	tons	Straits	Tin,	Aug			.19
			M	IONDAY, MI	ay 5.		
1	No tre	ansacti	ons.				
			T	UESDAY, M	lay 6.		
2	No tre	ansacti	ons.				
		WEDN	ESDA	y, April &	First	Call.	

No transactions. The above sales embrace 300 tons of Pig-Iron certificates (No. 2) at \$18.50 @ \$18.62 1/2. and 80 tons of Tin at 18.75¢ @ 19.05¢.

A daily "call" on Tin Plates was inaugu rated on Monday, the 5th inst., but thus far no sales have been made under this head.

The Secretary has received reports from 66 blast furnaces for the month of April, of which 22 were in blast and 34 out of blast at the close of the month. They report the following stocks and production

	Unsold	stocks,	Production.		
All grades.	Apr. 1.	May 1.	In Mar.	In Apr	
	Tons.	Tons.	Tons.	Tons.	
Anthracite	11,626	10,183	8,434	8,910	
	20,565	18,886	18,616	9,088	
	5,276	4,825	1,406	1,016	
Total	37,467	33,294	28,456	19,014	

The Labor Trouble at Tacony.

Erroneous accounts of a recent trouble with Erroneous accounts of a recent trouble with the rolling-mill hands of H. Disston & Sons have appeared in the Philadelphia papers, and, although the matter is not one of great public interest, it is desirable that the facts should be correctly stated, if at all. Forty four men employed in the rolling mill at Tacony were discharged last Wednesday under the following circumstances: Mr. Horace C. Disston has had the general management of the steel business for the past eight years, but the recent death of his for the pa brother, Albert H. Disston, rendered his presence in the office necessary. Mr. S. T. Williams, lately of the Albany and Rensselaer Iron and Steel Company, at Troy, was selected to take his place as general manage of the steel business. Owing to the fact that Mr. Williams had been connected with the Troy works during a bitter struggle of the company with the Amalgamated Association, some of the workmen at Troy sent to men at the Tacony works letters and newspaper cuttings intended to prejudice them against that gentleman. Although there is no branch of the Amalgamated represented in the works at Tacony, these efforts naturally had some effect. The workmen in the Disston mill had a meeting and appointed a committee to wait upon Mr. H. C. Disston, with a request that he make no improve-ments in the mill, and that Mr. Williams's services be dispensed with. His discharge was not demanded, but it was intimated that the men desired it. Mr. Disston heard what the men desired it. Mr. Dission near what they had to say, and then pointed out the folly of their position. This they seemed to see, and the committee retired. The following day Mr. Disston, feeling that the matter could not be allowed to end there, no tified the forman that he intended to discharge eight of the men who were known to be the ringleaders of the movement. The foreman replied that if this was done all the men would leave, as a petition was ready for presentation demanding the removal of Mr. Williams within two weeks, at the end of which time the men would leave if he did not. Mr. Disston thereupon closed the mills.
Those who had signed the petition were discharged, and those who had not were re-Mr. Williams had given the men no cause to dislike him, and the action of Mr. Disston in resisting an attempt to continue in Philadelphia a quarrel which resulted in breaking up a lodge of the Amalgamated Association in Troy was a necessary measure of self-protection. The temporary stoppage of the steel rolling mill will not in any way inconvenience the business, as they have good supply of steel on hand and can get more if necessary.

The Building Trades.

The following interesting report of the building trades is from the May number of Carpentry and Building:
In accordance with the plan we have fol-

In accordance with the pian we have fol-lowed for several years past, we have re-cently invited correspondents in every city, town and village in the country to give us the information at their command relating to the present condition of the building trades, the present rate of wages paid me-chanics in the various lines, and the pros-cents for the season both with respect to the pects for the season both with respect to the work to be done and rates of wages. From several thousand letters received in answer to our request for information, we have at-tempted to arrange what may be called a bird's-eye view of the entire country, show-ing in a single article the general conditions and prospects of the business in all the dif-ferent sections. It is manifestly impossible, within the largest space we could devote to this subject, to enter very much into details. The land is too broad, and there are too many important towns to be considered, even to permit of giving all the more prominent ones the briefest mention. We are obliged, therefore, to consider the country, for the most part, by its great geographical divis-ions, with more specific mention of States and neighborhoods, and only occasional allusions to those cities and towns the condition of the building trades in which deserved special mention. Those of our readers who special mention. Those of our readers who have gone to great trouble to give us full and accurate reports of their own communities must not suppose for an instant, because they do not see any mention of their places by name, that their work has been in vain Every report we have received has been carefully considered and systematically tabulated with others from the same general neighborhood, and each, however unimportant in itself considered, has entered into the sum of our calculations, just as each indi-vidual brick forms a part of a completed structure. We could no more spare a single report we have received, without loss, than uld individual bricks be taken from a wall without weakening it. We take this occasion to return thanks to all of our subscribers who have so kindly aided us in the enter prise.

Commencing with the New England States we find that at the present time the majority of the mechanics in each of the building trades in them are employed, and that their prospects for steady work during the season are fully up to the average of past years. Wages are reported as very generally satisfactory, and rule about the same as last year, with an upward tendency in some instances. The work in hand and in prospect is both repairs and additions and new buildings. booms, is steadily pursuing the even tenor of its way. The average wages of carpenters throughout the State of Maine is about

\$2 per day, with higher rates in the more important cities. Stone masons average about \$3. These figures are not materially changed in New Hampshire. In Vermont the rates for carpenters are about the same, but masons seem to be getting from 25 to 50 cents per day less than in Maine. In all the more prominent manufacturing towns in Massachusetts there seems to be a better outlook for work at present than last year at this season. Wages are expected to rule about the same as at present. Carpenters are getting \$2.25 to \$2.50, with higher rates in Boston and other important cities. Stone masons range from \$2.75 to \$3.25, the most frequently recurring rate in our reports being \$3. The conditions in Connecticut are very much the same as in Massachusetts, but in Rhode Island the prospects, outside of one or two important centers, are less promising, and wages rule at least 25 cents per day less than last quoted above. In Providence it is estimated that the season's business in all respects will be about the same as last year.

The general impression of our correspondents throughout the State of New York is that the building business this year will be about the same as last year. New York on account of her position as a trade and financial center, goes on building with-out regard to times or seasons. Her builders are busy now and have been well employed all winter. Wages in all the trades rule higher in this city than throughout other portions of the State, with perhaps the exception of one or two other large cities, but the increased cost of living more than makes up the difference to the mechanic. Single men may do well in the large cities, but every man of family should rejoice when he is in work at fair wages in the smaller country towns. The average wages of carpenters throughout the State is about \$2.25. Some are receiving less, and very few get as much as \$2.75. Masons average \$2.75 and \$3. Alas \$2.75. Masons average \$2.75 and \$3. Albany and the towns in the immediate neigh

borhood are paying \$4, and Buffalo \$3.50. Our reports from Pennsylvania are not quite so encouraging as those from New York. Wages rule at about 10 per cent. less than the rates named for the Empire State excepting, of course, in the large cities. Philadelphia has one or two very large en-terprises under way, and Pittsburgh is terprises under way, and Pittsburgh is probably doing an average amount of build-ing this year. Many of the towns from which we have heard consider the outlook rather discouraging. rather discouraging. New Jersey may be described as partaking in some measure of the spirit of the two great States to which she is immediately contiguous. Some towns report prospects excellent and wages good, while others are less hopeful. It is estimated that there will be about the usual amount of building in the various watering-places for which the New Jersey coast is becoming so

Following down the Atlantic seaboard, we find that in Maryland, Delaware, District of Columbia and Virginia the prospects for the season depend in a great measure upon the location. We have the least satisfactory reports in number from Maryland, but, from those we have received, wages seem to rule low, and the prospects are not very flatter-ing. Baltimore, like all other large cities, is doing some building, while the growth of the National Capital, which has already become almost proverbial, is still going on. While there is an absence of very important enterprises at the present time, the general growth of the city, as shown by the erection of dwellings and business buildings, indicates substantial progress. All the towns in Delaware from which we have heard consider their prospects good. Mechanics are fully employed, and wages average about the same as the rates quoted for the State of New York. In Virginia the rates are about the same, and mechanics are busy. In Richmond a large amount of new work is in

There is no particular activity in building matters in either North or South Carolina. Probably an average amount of repairs and some little new work will be undertaken enough in the aggregate to keep the me-chanics of these States fairly busy through the season, but not enough to require any outside assistance. In Georgia, on the other hand, notably in her leading towns and cities, the indications are very favorable. A very large amount of work is already under contract and more is contemplated. Brick masons are getting from \$2.50 to \$3.50 per masons are getting from \$2.50 to \$3.50 per day, and carpenters of real ability from \$2 to \$3.50 per day. In Florids, outside of the few towns which have become popular as health resorts, there is very little doing. Bricklayers in Jacksonville are reported worth \$3 to \$3.50 per day, and carpenters in Jacksonville are reported to most as City and other points is reported exceptionally active. Wages throughout Kansas seem to average a little higher than in both cases. Alabama presents a fairly favorable prospect for home mechanics, but there is very little real activity. Carpenters:

The building outlook in Utah is pronounced to \$3.25 to \$3.25 for carpenters; \$3.25 to \$3.25 for the latter of propulsion by horse-power are as follows: First, increased speed; second, the ability to provide transportation to the full requirement of the public, even during what are called commission hours; third, cleanliness; fourth, absence of noise caused by the clatter of horses' hoofs; iffth, freedom from snow blockades in winter; sixth, superior construction of the carbance of the second, the ability to provide transportation to the full requirement of the public, even during what are called commission hours; third, cleanliness; fourth, absence of noise caused by the clatter of horses' hoofs; iffth, freedom from snow blockades in winter; sixth, superior construction of the carbance of the second, the ability to provide transportation to the full requirement of the public, even during what are called commission hours; third, cleanliness; fourth, absence of noise caused by the clatter of horses' hoofs; if the provide it is a paying \$4.05.25 for the second, the ability to provide transport to \$4.50 for the latter. Building in St. Louis, Kansage of the State for the former and \$2.25 for the latter. Building in St. Louis, Kansage of the State for the former and \$2.25 for the latter as follows: First, increased to \$4.50 for the latter. Building in St. Louis, Kansage of the State for the ability to provide transport to \$4.50 for the latt is very little real activity. Carpenters' The wages are quoted from \$2 to \$3. Some of the towns in Mississippi report the prospect at the present time better than a year since. Wages range about as quoted for Alabama. Louisiana shows very little activity throughout the State at large. New Orleans is at the Cotton Centennial, which opens in that the Cotton Centennial, which opens in that city next December, but wages have not been materially influenced by it. Arkansas is making progress in the way of material prosperity. According to the reports from that State, a number of new buildings will be erected during the present season. Wages remain about the same as during last year. Tennessee presents a far more cheerful ontlook than most of the Southern States. Chanics at present are very generally content of the Southern States. Chanics at present are very generally content of the States. In the cities named masons are quoted at \$3.50 to \$4, and carpenters from \$2.25 to \$3. All the mechanics are at present fully employed. Masons are getting from \$2.50 to \$4, according to location and activity of trade. Oregon sympathizes somewhat with California, and gives indications of healthy growth and development.

We must not neglect the Lone Star State. It is important for its size and the great possibilities that are locked within it, waiting only the proper key for their development. ful outlook than most of the Southern States. mechanics are at present fully employed. Our reports from Kentucky indicate that rather more building will be done in that

prospects throughout other portions of the State are not much different from former years

The three central States, Ohio, Indiana and Illinois, are about alike in their building prospects at the present time. About half of the towns from which we have heard of the towns from which we have heard report more building in contemplation than a year since, while the remainder think it will be somewhat less. The work is about evenly divided between additions and repairs and new buildings. Throughout Ohio stone masons seem to average \$2.50 per day, with rates varying from \$3 to \$4 in Cincinnati, Cleveland, Toledo and the other larger nati, Cleveland, Toledo and the other larger cities. Carpenters are similarly quoted at \$2.25 to \$2 50 as the general average of the State. The rates are about the same for Indiana, with a rising tendency in those sections where business is the best. In Illinois about the same conditions prevail. is active in Chicago, and wages in all the trades rule higher in that city than in other portions of the State. Rates in Springfield are also above the average. Michigan indiare also above the average. Michigan indicates a fair degree of activity. Wages rule about the same as in Ohio and Indiana, with less difference in the larger cities. Detroit anticipates a larger business this year than last, and yet the wage quotations for that city average lower than for most other places of its size. Masons are receiving \$3 to \$3 25, and carpenters \$2 to \$2.50. The great Northwest, which has been so rapidly filling up the past few years, and of

which the daily papers are never tired of giving famous accounts, might be expected present a more favorable outlook than is indicated by our reports. It appears that mechanics throughout Wisconsin, Minnesota, Iowa and Nebraska are receiving from 5 to 15 per cent. more than their fellows employed in the Central States, but that outside of some of the leading cities the building business is far from booming at the present time. Only a portion of Only a portion of mechanics in the building trades were employed at the date of our advices, although it was very generally expected all would find work a little later in the season. For the most part it is expected wages will remain at about present quotations during the summer. It is to be rememduring the summer. It is to be remem-bered, when considering this section of the country, as well as others which are in pro-cess of being settled, that the character of the buildings at first demanded are upon the cheap order, and that it is only after a time that the services of the better grade of me-chanics are demanded in the erection of more commodious dwellings, of schoolhouses cburches and other public buildings. course, there are exceptions to this general rule, and St. Paul and Minneapolis, Minn., are notable examples in point. These places, which from their age should be scarcely which from their age should be scarcely more than villages, are veritable cities, growing with almost unparalleled rapidity. Both have doubled in population within the past three years. The building business in both of them is very active, and seems likely to continue so for some time to come. The buildings erected are of the most substantial character, rivaling those of the older cities of the country in their di-mensions, appointments and cost. Wages rule a little higher in them than in the other towns of the State, and yet fully as many mechanics seem to be on hand as are required. A few other important towns throughout this general section of the country present a fair degree of activity. Our remarks about the buildings first required in new sections of the country apply with spe new sections of the country apply with spe-cial force to the Territories lying west of the States we have just described. A few towns have fitful spells of building, and pay high prices for labor, but in general there is com-paratively little to be done. In the min-ing regions there is always work in progress in the prosperous towns and very little anywhere else. Wages in Montana for carenters are quoted at \$4 to \$5 per day, and for stone masons and bricklayers \$5 to \$7 per day. Cost of living is believed to be proportionately high. Very little new work is contemplated. In the State of Colorado asons get \$3 to \$3.50, and carpenters \$2.50 \$2.75. The outlook, especially in Denver, to \$2.75. The outlook, especially in Denver, is less favorable than a year since. Missouri and Kansas, on the whole, seem to be more favored than some of the States east of them. More work than last year is reported from almost every town from which we have heard, and mechanics are at present fully employed. St. Louis is paying \$4 to \$4.50

The building outlook in Utah is pronounced very poor indeed. Salt Lake City is decidedly Wages are merely nominal, and many mechanics are out of employment. Very little is doing in New Mexico. Ranching does not seem to demand any very large towns or very many buildings of any kind. present doing more than usual, growing out Our reports from Arizona are meager, and of the preparations that are being made for such as we have received indicate that the such as we have received indicate that the general outlook is discouraging. Nothing very promising reaches us from Nevada. Quotations of wages in both of these Territories are more than double the rates that are current in the Eastern and Middle States, and still there appears to be very little doing In California the outlook is far more promis ing. Considerably more building wundertaken this year than last year. Considerably more building will be chanics at present are very generally em-

> ing only the proper key for their develop-ment. Our reports from Texas, without an exception, are favorable. In most of the older towns more building will be done this

In general, it may be said that there will fair amount of work to be done this year in all sections of the country. There does not seem to be any likelihood of material change in wages from present rates There are no apparent causes for great strikes, and there are very few disturbing elements in the building trades in sight at the moment. It would seem to be a favorable time to invest in buildings, so far as labor is concerned. While very few mechanics have any special cause to rejoice at the present situation, equally few have any great cause to complain. The year, in point of building, so far as can be judged at the present time, will be about up to the average

Sale of the Allentown Iron Company's Works.—At Philadelphia, on the 7th inst., the property of the Allentown ron Company was offered for sale by Auctioneers Freeman & Co. The property, which is located near Allentown, Lehigh County, Pa., includes a tract of land on the Lehigh River, in Northampton Township; a tract of land in South Whitehall Township, together with the buildings and improve-ments, comprising 5 blast furnaces, 5 steam engines and machinery, foundry and ma-chine shop, dwelling houses and other buildings, wharves, railroads, quarries, 6 locomo tives, 108 ore cars, 66 stone cars and 23 cinder cars. Also all the ways, woods, water-courses, rights, &c. The sale is due to the company's failure to meet the interest to the company's failure to meet the interest due bondholders under the provisions of a mortgage deed of November, 1877. The property was bought in by the president on behalf of the bondholders. The price paid was \$50,000.

Canadian Drawback on Cut Nails .-An order in council was issued, at Ottawa, Canada, on the 3d inst., allowing a draw-back on exports of cut nails manufactured in Canada, not finer than small thirds, of 90 per cent. of the duty paid on iron imported to make them. When trouble arises in to make them. When trouble arises in establishing the value a specific duty of 16 cents per 100 pounds will be allowed on bar iron, nail strips or steel, or 8 cents on pud-dled bars used with scrap or other duty-free material, the latter not to exceed 25 per cent. of the quantity.

Last week Messrs. P. Lorillard & Co., the well-known tobacco manufacturers, opened a free library and reading-rooms for their 300 employees at Booraem Hall, Jersey City, N. J. At one end of the hall is a large room to be used exclusively by the female employees, and at the other end is a large room reserved for the male hands. The rooms have been comfortably fitted up with rooms have been comfortably fitted up with tables and chairs, and are well lighted and ventilated. Ten thousand volumes have been ordered and 6000 were on the shelves. Excellent judgment has been displayed in selecting the works. Nearly 100 newspapers and magazines and periodicals will be taken regularly. In addition there are playing cards, chess, dominoes and other games, but gambling is prohibited. The object is to furnish the employees a place where they can pleasantly and profitably spend their Sundays and evenings without cost. The entire expense is to be defrayed by the employers. The rooms are to be open every day, from 9 The rooms are to be open every day, from 9 in the morning till 10 at night.

The trial shooting on board the Chinese armor plated ship Chen Yuen, which took place on April I, when returning from Ecker-foerde, according to information received has given most favorable results. Krupp's cannons, 30 1/2 cm. caliber (about 12 inches) and 25 diameters long, of which there were two in each of the two towers, were first discharged singly, being each loaded with 220 pounds of powder; then all four cannons were discharged at once, by which 880 pounds of powder exploded at the same moment. The ship did not suffer the slightest damage from the discharging of the cannons, nor did the shooting affect the electric illumination which was in operation during the whole of the proceedings.

A leading advocate of the cable-railway system declares that its main advantages over the whole method of propulsion by horse-power are as follows: First, increased

In one of the Western cities, a short time ago, the fire marshal was making an inspec-tion of a factory in which a number of girls are employed, and, finding the only fire-en an iron ladder in the rear portion of the building, he asked of the proprietor of the mill: "In case of a fire, how many of the girls do you think could descend that ladder t" "Vhell, I had thought about dot," was the calm reply, "und I haf ar-ranged for all der girls to come down shtairs, and all der men to go donw mit der ladder.

Last week we reported the inauguration among British shipowners of a movement to withdraw a portion of their vessels from service until business improves. The scheme did not meet with favor at Glasgow, but on the 1st inst. a meeting of shipowners at Newcastle approved of proposals to lay up one fourth of their tonnage, in view of the pres-ent condition of the freight market. Steam ers engaged in trading will contribute to the expenses of the laying up.

The English firm of Messrs. G. Elliott & Co. have completed what they claim to be the largest and longest wire rope in the It is evident that this important section of country, while experiencing no very marked booms, is steadily pursuing the even tenor of its way. The average wages of carpenters throughout the State of Maine is about



Price List. Hack Saw

PRICE OF BLADES.

9 inch. 70 cents.

PRICE OF STEEL FRAMES PER DOZEN.

These frames are all made of steel, and, as seen in the cut, are all adjustable so as to face the blade in four different directions. The extension frames will hold the four different lengths of blades. The solid frames only hold the 8-inch blades, this being the length most in use; they all have the patent staple-shaped pins to hold the blades in the frame, which are so arranged that they cannot fall out. We say that the Star Hack Saw is 100 per cent. better than any other kind in use. If, on a fair trial, it is found that one dozen of our Saws will not cut as much as two dozen of any other kind, we hereby authorize all de lers to return what they may have in stock, at our expense. Now, if our competitors have the same faith in their saws, let them make the same offer, so that dealers may unload what they don't want, and sell only the best, whichever one it proved

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With Handle

This is strictly a first-class article, embracing some new and desirable features.

1st. Both jaws open and close simultaneously, so that anything held therein is not only central, but on a line with the handle—a great advantage in filing, &c.

2d. It is hollow, allowing a rod to pass entirely through it, as shown in cut. A desirable feature, often saving much valuable stock.

BONNEY VISE & TOOL CO., Philadelphia, Pa., U. S. A.

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New York Office, No. 90 John St.; Entrance on Gold St., MANUFACTURERS OF

BEST CHARCOAL

AND PLATE IRON GENERALLY.

ALSO BEST QUALITY HOMOGENEOUS STEEL PLATES.

We ask the special attention of the trade to our C. H. No 1 Boller Plates, which we manufacture expressly for the Shells of Steam Bollers and stamp 50,000 pounds T. S. when desired. The hundred and sixteen tests of this from made during the last three years by the 1. S. Inspectors of Steam Vessels, show an average tensile strength of 58,808 pounds to the sectional square inch. and an average reduction of area of the fractured section of 30% per centum. Our prices are as low as the production of a good article will admit of.



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MANUFACTURERS OF LIGHT AND MEDIUM WEIGHT

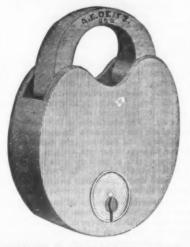
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HARDWARE,

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Main Belting Co., Manufacturers of THE LEVIATHAN

COTTON BELTING.

Unsurpassed for Strength, Durability an Cheapness. Cheapness.

Made to any Length,
Width and Strength

Main Driving Belts. Guaranteed to Run Straight, Even Through No Cross Joints, Un-

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DROPHAMMERS. HORIZONTAL PRESSES FOR BENDING IRON, GANG BORING MACHINES, TOOLS FOR PLOW MAKERS

THE JUSTICE HAMMER. SEND FOR CIRCULARS.

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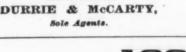
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Our Genuine Wrenches are made with straight bars, full width and enlarged jaw, having ribs cast inside, which strengthen the jaw and give a full bearing on front of bar. These improvements, in combination with our new ferrule, made with double bearings, an iron tube, fitted to the shank and resting against the lower bearings, rayfdly held in position by the handle and nut, effectually preventing back thrust of ferrule (see sectional view), verify our claim that we manufacture the heaviest and strongest Wrench in the market. None genuine unless stamped

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Makers of SNATHS, CRADLES, FORKS, HOES, RAKES, &c.,
FOR HOME AND EXPORT TRADE.

ORT MADISON - IOWA, U. S.

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English Letter.

(From Our Regular Correspondent.) LONDON, ENG., April 21, 1884.

THE PAST WEEK

has been much broken into by the Easter holidays, which were exceptionally pro-tracted, despite the Siberian east wind which has been searching out our very marrow during the past 10 days or so. It may not or it may be true that we Britishers or it may be true that we Britishers "take our pleasures sadly," yet it cannot be denied that we do take them when opportunity serves, and that the established bank holidays are very generally observed. There are four of these occasions in the year, namely, the day after Christmas Day, Easter Wooder. Whit Monday with the first Monday. Monday, Whit Monday and the first Monday in August. When Sir John Lubbock's bill passed through Parliament, making these days legal holidays for the banks, it was not supposed that the days would be generally kept; yet in the course of a very few years they have become universal holidays, and are as sacred to relaxation as any of the few other "off" days in the British calendar. The fact is that as a nation we have extremely few holidays, and, as these four days are judiciously selected, they hit the public fancy, and are hailed as being the right thing at the right time. This year the manufacturing section of the community has been glad to have an opportunity of ceasing work, which has been done for the whole week in all cases where orders were tot of a decidelly syrenty nature. In an not of a decidedly urgent nature. In an ordinary way it does not pay to run machinery unless the whole of the plant is utilized, but on this occasion the masters have indulged their own inclinations by remaining closed the whole week, whether the men liked it or the contrary. It is to be noted that the holidays just over have been characterized by much less drunkenness and rowdyism than has been the case on former occasions. It is possible that the spread of education may have something to do with the improvement, but, at a rough guess, I should suppose that at least as much is due to the depression of trade, which limits the earnings, and therefore the spending power, of the average British workman. Anyhow, the change is a welcome one.

As regards the state of trade and com-merce there is really very little that is new to report. Everything is almost unprecedently dull in every branch. The quantity of idle shipping is increasing weekly at all the great ports, owning to the fact that freights are not obtainable on a remunerative scale. New orders for ships are conse quently very scarce, and, when given out, are mostly for foreign or Colonial buyers. Shipping companies are not earning their salt on cargo work, and even the passenger lines are cutting each others' throats in fine style. All the markets seem to be over-stocked with goods, yet the process of production goes on apace, and the already over-burdened warehouses are being further crammed. We in this country are not alone in our troubles, for similar accounts reach us from France, Belgium and Germany, while your own market does not seem to be anything like a boom. Perhaps we suffer more than any other country, owing to the absence of a protective tariff and by reason of our own limited consumptive powers; yet I am bound to say that the doctrines of the fair traders do not appear to make much general progress, and the country as a whole may be deemed faithful to free trade. Perthe fair traders are growing. allege they are very strong at Birmingham and Sheffield, as well as in Lancashire, but if so it must be owned that they are under cover of a great and mysterious silence.

THE IRON MARKET

is in no sense changed. From almost all quarters there are complaints of dullness and the keenness of current competition, with prices which are declared to represent the utmost that can be done without actual losses being incurred. The means of production are so large that the aggregate turnover of many kinds of iron is still heavy, but it is believed that the make is now being gradually lessened, and it is tolerably certain that, unless values should harden -of which there unless values should harden—of which there is little or no probability— much more plant will be stopped. The quarterly meetings do not appear to have had the slightest effect upon the course of business, and selling values are just as nominal and irregular as at any time during the past five or six shire for the reduction of the ironworkers wages are natural and necessary results of the state of trade, and it is hoped that setmay be arrived at in an amicable Some of the men in Scotland have tlements may be arrived at in been out on strike, but have resumed opera-tions. At Glasgow warrants have been almost inanimate, with nominal fluctuations in prices, which closed at 42/41/2 P Shipments are on a fair scale, but are about 10,500 tons below those for the corresponding period of last year, the decrease being wholly in respect of foreign requirements. Stocks are now 11,000 tons larger than they were a year ago, and that despite the fact that for several weeks past 18 fewer furnaces have been at work, thus lowering the about 3600 to 3800 tons weekly

At Middlesboro' the market remains dull and lethargic, the local consumption being on a relatively limited scale. Shipments are moderate, about 8000 tons more having been sent to Scotland this year than last year to date. For No. 3, 37/@ 37/3 is asked, No. 1 being 41/, and No. 2, 39/, all for net cash, f.o.b. at makers' wharves in the Tees. Hem atites are dull and in excessive supply. For North of England sorts, prices are 48/6 for No. 1, 47/6 No. 2, and 47/ for other numbers. West Coast mixed lots stand at 46/@ 47/6, with hardly any new demand for ex The American market is of scarcely any value at all to this industry at present. Other grades of crude iron are as mentioned last week, and are all in favor of buyers. Heavy manufactured iron is quiet as regards shipbuilding sorts, but there is a large output of iron for construction purposes, and a steady production of boiler plates, chain and cable iron and special sorts. Fencing wire is dull, with a disturbed market, owing to the strike. For the same reason wire rods

are neglected on home account, albeit large lots are going to the United States. Galvanized iron is in very moderate request, and I hear of much cutting in prices to secure the few orders given out from time to time. Ordinary finished iron is irregular, slow of sale and nominal in value all around. Such sate and nominal in value all around. Such being the case, it is impossible to give other than approximate values, which are roughly based on £7 @ £7. 10/ for marked bars, £6 @ £6. 15/ for medium, and all sorts of prices for common, from £6 down to £5 for Welsh assortments. Sheets are fairly steady, but do not meet with a very lively consumption. Prices range from £7 to £10 according to brand description for £10, according to brand, description, &c., Swedish hammered bars from stock are called £10. 10/ @ £11. 11/, and Swedish railroads about £11 \$\frac{1}{2}\$ ton. Iron nails are in railroads about £11 \$\tilde{\theta}\$ ton. Iron nails are in poor request. For old rails 58/@60/\$\tilde{\theta}\$ ton is asked by holders of D. H., stocks of which in London are light, so far as dealers are concerned. Heavy wrought scrap is quoted at 48/@49/, f.o.b. London, for No. 1 assortments, and is scarce. Freights are as last week, rates for pig iron from Glasgow to New York by ordinary steamers being easy at about 5/ ₽ ton. Tin plates from Liverpool to New York are 7/6 ₽ ton. Steel is very quiet in almost all directions, scarcely any firm in the various branches being full occupied. Those doing best are the Sheffield es with specialties in forgings, castings or high-class brands of steel for tool or engineering purposes. Bessemer bars are £7. 15/ @ £8, hoops £7. 15/ @ 8. 5/, and sheets or plates £9 @ £10. 10/ P ton. Crop ends are very firm at 52/6 @ 55/ P ton, f.o.b. usual ports, with very light stocks on hand. Steel rails are without special feattures to note, at £4. 17/6 for flange sections of 50 lb per yard and upward. New business is scarce.

THE IRON AND STEEL INSTITUTE spring meeting, to be held in London at the end of the month, may be dull of itself, but it may not improbably be lively in reference to the vacillating policy which has sur-rounded the subject of the autumn meeting of 1884. I am quite sure that I embody the sentiments of the majority of the members when I state that they are deeply disappointed by the non-acceptance of the cour teous invitation of the American Institute of Mining Engineers. Why that invitation was not accepted I cannot and do not pretend to say. Possibly it arrived too late for the council to make the necessary arrangements; possibly it did not do so. It was very well possibly it did not do so. It was very well known months ago that such an invitation would in all probability be forthcoming. I can only hope that it was not decided to refuse the invitation prior to its receipt. Without knowing the motives which have led the council of the Institute, I venture the guess that the old tariff business has had something to do with it. If on the council of the cou bad something to do with it. If so, the council must be prepared to defend themselves from the charge of inconsistency, seeing that they have righted Gostova Assistance that they have visited Germany, Austria and other countries where protectionism flourishes, and cannot decently refuse only the States on that ground. Further, I should not be surprised if the meeting at Chester should not prove a decided flasco—indeed, there are those who shake their heads and prophesy that the action of Sheffield in refusing to allow the members to visit works will prove the beginning of the disintegra-tion of the Institute. Without going so far as that, I should not be surprised to learn that the autumn meetings where wholly abandoned, and only one meeting held yearly -in London.

SCOTCH PIG IBON

is practically unchanged on the week, the as practically unchanged on the week, the margins on warrants having in no case exceeded 2d. \$\beta\$ ton. They are now 42/4, as against 47/a year ago, when the stocks were much smaller, but the make on a larger scale. There are now 92 furnaces at work (including 9 on hematites, &c.) in Scotland, as compared with 113 this date 1883, the production being thereby lessened by about 3600 tons weekly. In Connal's stores there are 593,339 tons (a decrease last week of 510 tons), as against 582,246 tons a year back. The shipments to date have been 152,740 tons (of which 91,501 tons foreign and the balance coastwise), or a falling off of 11,920 tons when compared with the same period of last year. Last week's shipments were 1450 tons worse than those of the same

MIDDLESBORO' PIG IRON

does not improve, the shipments this month does not improve, the shipments this month to date being 12,000 tons or so behind those for the corresponding period of last year. The local consumption is poor, many of the mills devoted to plates and other sorts of shipbuilding iron being partially, or even wholly, laid off for want of orders. For No. 3, 37/@ 37/3 are quotations, with G. M. B., f.o.b. at makers' wharves in the Tees, as under:

No. 1 Foundry. 41/8 | Mottled... 4 Forge. As I write, a telegram is to hand announcing that the arbitrator to whom the wages estion had been referred has decreed a reduction in wages of 21/2 % only, whereas the employers asked for a drop of 10 %. The reduction will affect the present quarter, and will cover the period from March 31

to June 30. It is hoped that both sides will loyally observe the arbiter's award. HEMATITE PIG IRONS

remain extremely dull, with a comparatively limited amount of business doing, and steadily growing stocks, even in the teeth of the largely reduced rate of production. Your market is being closely studied, but as yet has not yielded orders of any note Mixed lots in usual proportions may be called 46/@ 47/6, and West Coast makers'

DIMINIO MIO!			
	No. 1.	No. 2.	No. 3.
Cleator	49/	48/6	48/
Lonsdale		47/	46/6
Workington	47/	46/6	46/
Lowther	47/	46/6	46/
Distington	47/	46/6	46/
Harrington	48/	47/6	47/
Solway	47/	46/6	46/
Maryport	47/	46/6	46/

umberland ports, &c.: No. or quality.	Ordinary. Besseme
	48/6
	47/6
	47/
Foundry	47/
Forge	47/
ottled	47/

Last week's West Coast exports included 2,067 tons of pig iron and 5880 tons of steel

TIN PLATES

are in a slightly anomalous position, but for the moment they are stronger in value, and may possibly reach distinctly higher figures in the course of the next month or so. An attempt has been made to impose a general advance of 1/per box, but I do not hear that the movement has been successful all along the line, although the majority of the makers have held out for, and many have obtained, 6d. @ 9d. per box more money during the past few days. It is held that stocks are decreasing concurrently with a lower rate of production, while, on the other hand, it is urged that the make, albeit nominally smaller, is in reality more than equal to the enlarged demand to which the akers point in support of their views.

SCIENTIFIC AND TECHNICAL.

Trials of Armor Plate in Denmark

An account of the armor-plate trials car-An account of the armor-plate trials carried out on the Island of Amager on March 20 and 21 has appeared in the Army and Navy Gazette. The four plates were bent on an inside radius of 10 feet 9 inches. Each formed a separate target, the English plates being fixed by means of 12 bolts to the backing, that of Marrel Frères by 11, the Schneider solid steel plate by 16 bolts. A 15-centimeter (nearly 6 inches) Krupp gun, 24 calibers long, and an 18-ton Armstrong 34 calibers long, and an 18-ton Armstrong muzzle loading gun, were used. The pro-jectiles consisted of 5%-inch and 10-inch steel shell of the latest pattern manufactured at Essen, also 5%-inch chilled-iron shell and solid 10 inch chilled shot of Swed-ish manufacture. The latter was only used against the Cammell compound plate. The range was 100 meters (328 feet). On March 20 the experiments commenced with a round of steel shell at each plate. All the four shells struck the plates full in the center, penetrating the Marrel plate considerably, two large cracks starting from point of impact to the edges of the upper and right side of the plate. The Cammeil plate was slightly penetrated, and showed a few surface hair-cracks. The Brown plate showed deep cracks running from the point of impact to the left side of the plate. The shell penetrated the Schneider plate to a considerable depth and cracked it in half from top to bottom through the point of impact. The next experiment was made on the left-hand lower corner of each plate, the 10-inch gun being fired with steel shell.

The first shot knocked the whole left side of the Schneider plate off its target. The lower part of the Marrel plate was completely wrecked; the shell, passing through the target, was picked up uninjured a long distance in the rear. The English plates broke up the shell as they passed through. The Cam-mell plate showed a few additional surface cracks; the shell striking the Brown plate somewhat low down, broke off the corner. On the 21st experiments were resumed. A solid 10-inch chilled-iron shot was fired with a charge of 63 pounds of powder at the Cam-mell plate. Although the shot did not penetrate the compound plate, the target was flung bodily to the rear. A 5%-inch chillediron shell was next fired at the Brown plate. This opened up a horizontal crack in the plate through its entire thickness, breaking it into three pieces, a similar shell completely destroying all that remained of the Marre plate. In these trials, 467 pounds weight of metal were fired at the Schneider plate, 569 pounds at the Brown and Marrel plates, and 832 pounds weight at the Cammel plate.

Potential Energy of Gunpowder. One of the recent course of lectures on Heat in Its Mechanical Applications" that have been delivered at the British Institu-tion of Civil Engineers was by Capt. Andrew Noble, the subject being "The Heat Action of Explosives." After considering a numvery few rounds. There was no difficulty in making guns to stand pressures much higher than those to which they were normally subjected, but then they must be in a serviceable condition. Nine-tenths of the failures of guns with which he was pressure was kept within moderate limits. He stated that the actual pressure reached suming the gravimetric density of the charge to be unity, would be between 18,000 and found it possible to measure the pressures due to the explosion of charges at considerably higher density, and had observed pressures of nearly 60 tons with a density of about 1.2. He stated that he could not agree se who were in favor of the strongest -meaning by the term the most explosive-

North of England sorts are as under, f. o. b. One of these guns was designed to fire the old-fashioned R. L. G., the other, modern powders. The maximum pressure in the older gun was nearly double that in the modern gun, while the velocity developed by the latter was twice, and the energy not far from three times, that of the former; and if the foot-tons per inch of shots' circumferthe robustons per filed of shots circumference were taken to represent approximately the respective penetrating powers of the projectiles, the superiority of the modern gun would be still more apparent. He directed attention, however, to one point, The new gun was as a thermo-dynamic machine much less efficient than the old. This arose chiefly from the fact that, although the new gun was absolutely much longer than its rival, it was, taken in relation to the charge nuch shorter-that is, the gases were charged at the muzzle at a much higher ten-It remained to consider the total amount

of energy stored up in explosives. In the case of the most important—gunpowder—he case of the most important—gunpowder—he stated that the total energy stored up was about 340,000 kgm. per kg. of powder, or, in English measure, a little under 500 foot-tons per pound of powder. He said that if the potential energy of 1 pound of gunpowder was compared with that stored up in 1 pound of coal, his audience, being accustomed to the appropriate pressure developed by graphs. the enormous pressure, developed by gun-powder, might be somewhat astonished at the results of the comparison. The potential energy of I pound of gunpowder was as nearly as possible ${}_{10}^{1}$ of that of I pound of coal, and ${}_{10}^{2}$ of that of I pound of hydrogen. It was not even equal to the energy stored up in the carbon which formed one of its own constituents. As an economic source of power, coal had the advantage by at least 2000 to I. He had stated that the total theoretic work of gunpowder was a little under 500 foot-tons per pound of powder, but it might be desirable to mention what proportion of this theoretic work was realized in modern artillery. He concluded by arguing that, were is necessary to urge the claims of the modern science of thermo-dynamics, he might take, as perhaps the most striking instance, the progress of artillery during the last quarter of a century. Twenty-five years ago our most powerful piece of artillery was a 68pounder, throwing its projectile with a velocity of 1600 feet per second. Since then the weight of our guns had been increased from 5 tons to 100 tons, the projectile from 68 pounds to 2000 pounds, the velocities from 1600 feet to 2000 feet per second, the energies from 1100 foot-tons to over 52,000 foot-tons. Large as these figures were, and astonishing as were the energies which in a smill fraction of a second could be impressed on a projectile of nearly a ton weight, they sank into the most absolute insignificance when our projectiles were compared with other projectiles, velocities and energies existing in nature. Hemholtz had given an estimate of the heat that would be developed if the earth were suddenly brought to rest, but if, looking at the earth in an artillery point of view, and following the principles he had laid down, the earth was considered as an enormous projectile, and if it was supposed, further, that the whole energy stored up in gunpowder could be utilized, there would yet be required a charge 150 times greater than its own weight, or 900 times greater than its volume, to communicate to the earth her

Phosphorescent Light.

In his "Science Notes," in a recent number of the "Gentleman's Magazine," Prof. W. Mattieu Williams says: "My note on this subject last July was preceded by one on the researches of Professor Radziszewski. I learn that he has actually separated the learn that he has actuany separated the luminous matter of the *Pelagia noctiluca*, one of the multitude of species of marine animals that appear like little lumps of jelly, and produce the phosphorescence of the sea. He evaporated to dryness 180 specimens, and from the dry residue dissolved out by means of ether a peculiar kind of fat, which, mixed or other a peculiar kind of lat, which mixed with potassa, gives out, when shaken, phosphorescent flashes. This is exactly what happens to the living animal. When quiescent it is not luminous, but if shaken or rubbed it flashes. I have collected and examined a great variety of these animals at different times, the most remarkable occasion being one morning after a magnificent display of marine luminosity in the Mediterwere 1450 tons worse than those of the same will be stopped. The quarterly meetings do not appear to have had the slightest effect upon the course of business, and selling values are just as nominal and irregular as any time during the past five or six months. The movements initiated in the North of England, Scotland and Staffordships of the season of Explosives." After considering a number of different explosives, including gundisplay of marine luminosity in the Mediteranean, a few miles off the shore of Algiers. The surface of the sea was incrusted, a large decrease. Makers' brands are as per cable at date.

Mobile gave an account of some experiments initiated in the North of England, Scotland and Staffordships for the reduction of the same of Explosives." After considering a number of different explosives, including gundisplay of marine luminosity in the Mediteranean, a few miles off the shore of Algiers. The surface of the sea was incrusted, a large decrease. Makers' brands are as per cable at date.

Noble gave an account of some experiments and this respect showed a large decrease. Makers' brands are as per cable at date. and its effects, and added that he was not in size from a mustard seed to a pea; a one of those who advocated or recommended the use of gunpowder giving very high side appeared like sago broth. They were the use of gunpowder giving very high side appeared like sago broth. They were initial tensions. If such a course were foldall internally dotted with a multitude of lowed, much would be lost and little gained. what I suppose to be germs, that would The bores of guns would be destroyed in a be liberated on the death and decay of the parent. The practical importance which I attach to the study of the luminosity of these creatures is the fact that they supply light without heat. The costliness of all our present methods of artificial illumination is due to the fact that we waste a largely disproportionate amount of energy in proacquainted had arisen, not from inherent weakness of the guns when in a perfect disproportionate amount of energy in proweakness of the guns when in a perfect disproportionate amount of energy in producing heat as well as light. This wasteful-state, but from their having, from one cause or another, been placed in a condition in which they were deprived of a large portion of their initial strength. He added halves, making one half into candles to burn that, with a given weight of gun, a higher in the ordinary manner, and using the other effect could be obtained if the maximum half to give out its light by cold phosphorhalves, making one half into candles to burn escence. I am not able to give precise figures, but I believe that I am well within the by the explosion of gun cottons experimented truth in estimating that the candle would with by Sir Frederick Abel and himself, as dissipate 95 per cent. of the potential energy of the fat in the form of heat, giving but 5 per cent. of the amount of light that the other half pound would emit as cool phossquare inch. While at the same density, in a closed vessel with ordinary powder, the pressure reached about 6500 atmospheres, or about 43 tons on the square inch, he had found it possible to measure the pressure reached about a the pressure reached about 6500 atmospheres, or about 43 tons on the square inch, he had found it possible to measure the pressure reached about 500 atmospheres and discover the whole secret of both the analysis and synthesis of this for searches, and discover the whole secret of both the analysis and synthesis of this fat, and that of the glowworms, the fireflies, &c. Now that we can supply the confectioner with the flavors of almonds, raspberries, jargonelle pears, nectarines, &c., and imitate the perfumes and the richest colors of nature's sweetest and brightest flowers, all by the chemical manipulation of coal tar, we need not despair of solving the chemical problem of transforming mutton suet, or

A Gas Indicator.

An indicator of gas leakages has been constructed by Mons. C. V. Jhan, and is described in the Revue Industrielle. The apparatus consists of a vessel of porous earth ware, such as the porous cell of a galvani: battery, set upside down, and closed by a perforated india-rubber stopper. Through the hole in the stopper the inside of the vessel is connected with a pressure-gauge containing a little colored water. The vessel The vessel can be exposed to the air of an apartment where a leak of gas is suspected, or a sample of the air may be contained in a bell glass inverted over the porous cell. The diffusion of gas through the earthenware raises the level of the water in the pressuregauge, and when the latter is properly graduated and proportioned to the capacity of the cell exact and delicate indications may be obtained in a simple manner. This species of diffusiometer is so sensitive that when an Argand burner is gradually turned down until it is extinguished, the instrument, if held above the burner, will show a considerable rise of the water in four or five seconds. If held over an ordinary burner, seconds. It held over an ordinary ourner, turned on just sufficiently to be ignited, the liquid rises very rapidly. When the instrument is graduated in millimeters a volume of ½ per cent. of gas in a room may be distinguished by it. An example is afforded by a case of sickness, which, in the opinion of the medical attendant, was due to gas poisoning. Some doubt arose on the point, cause gas was not laid on to the house. diffusiometer was brought into requisition, and showed the presence of gas, the source of which was afterward found in a broken main 3 m. distant from the house. A modification of the same instrument is made whereby the sensitive portion is adapted for permanent exposure in any place difficult of access, such as the ceiling of a theater or public building, where gas might be expected to collect, the indicating portion being fixed anywhere within view.

Coal and Iron in India.

The annual "Statement Exhibiting the Moral and Material Progress of India," lately published in England, deals with the al year 1881-82, and, though somewhat of date, says an English exchange, is fiscal full of information, and throws much light upon the economic condition of that country. To the question of the Indian coal supplies considerable importance now attaches in connection with the proposed large extension of the railway system, and on this point the report speaks favorably. As it is, India herself supplies the larger part of the fuel used on her railways. In 1881-82 the quantity of English coal consumed on the Indian railways was 175.951 tons, while of Indian coal 383,709 tons were used. As fuel, English coal is from about 20 to 40 per cent. more efficient than that of India. But whereas the former costs at Madras and Bombay from 15 to 17 rupees per ton, the cost of the Indian coal at the pits ranges mostly from 4 to 5 rupees. The expenses of carrying and handling the native coal have hitherto been so great as to counterbalance this difference in the first cost, but in time the greater facilities for transit may be exed to tell somewhat more in favor of the native product, and cause it to be more generally used. As to the extent to which the Indian supply might be increased to meet our augmented demand, the "statement" is is silent. We are told, however, that in 1881 the output from the 66 mines in operation in Bengal was 930,203 tons, against an average of 878,376 tons for the three years previous that the Central Provinces yielded 67,527 tons, against an average in the previous years of 43,413 tons, and that in Assam there is said to exist a procurable quantity of coal amounting to 40,000,000 tons.
With regard to iron, the report is much

less favorable. In almost every part of India iron has been found, and in most parts of the country it has been worked on a small scale. In very few places, however, has it yet been found coexistent with suffi cient supplies of coal or of wood of good quality, and the result is that this branch of ndustry has not been able to bear up against the competition of the cheap English iron. trial borings as to the extent and thickness of the coal beds are stated to be very promising-and (3) the Chando coal and fields. As to the much-talked-of gold fields of India, nothing favorable is reported, and the only other minerals reported as being worked, and that on a very small scale in deed, are copper, tin, and lime.

A Large Output of Open-Hearth Steel.—One of the steel-melting furnaces at the Mossbank Iron and Steel Works, largest makes on record since the introduction of the manufacture of steel. The fur-nace was charged at the usual time (10 o'clock) on Sunday night, and when finished at I o'clock on the following Saturday 210 tons 16 cwt. of ingots had been made, suitable for boilers and shipbuilding purposes.

It is noteworthy that the increase in the output of open-hearth steel in Scotland between the years 1879 and 1882 was over 400 per cent.—the output in 1879 being 50,000 tons, while in 1882 the tonnage was 213,000.

Patent Infringements .- In the United States Supreme Court at Washington City, on the 5th inst., a decision was rendered in the patent case of the Eagleton Manufacturing Company, appellant, against the West, Bradley & Cary Manufacturing Company and Joseph J. West. Appeal from the Circuit Court of the United States for the Southern District of New York. This was a suit for alleged infringement of a patent powder manufactured. To show the advance that had been made by moving in exactly the opposite direction, he exhibited diagrams of two guns of precisely the same weight, but differing in date by an interval of 10 years.

The chemical we need not despair of solving the chemical springs granted to the appellant in 1871. The court holds that the patent is invalid, and affirms the decree of the court below. Opinion by Justice Blatchford. upon an improvement in japanned furniture

reace fixed peace
Wholesale Hardware Prices, May 7, 1884.

HARDWARE.	Hright Wire Goods. List of June 25, 783. dis 70&10&- Bull Rings. dis 55 Union Nut Co. dis 655&10 Bothhiss low list. dis 15 Gumason, Beckley & Co's. dis 75 Tumason, Beckley & Co's. dis 75 Tum
A stagle Anvils American	Bargert's dis 66% do dis 15
Wright's	Tumason, Beckley & Co's
A Fagle Anvils American. \$ 5 noc-dis 20 % Wright's	Butta, — Wrought Brass
Anvil Vise and Dritt.	Cast Brass Loose Joint
heney Anvil and Vise	Fast Joint. Broad
Jonn. Valley Mfg. Co	Loose Joint, Japanned with Acornsdis 60&10 Parliament Butts
Humphreysville Mfg. Co.)	Mayer's Hingesdis fo&to to t
Miliers Falls Co., \$18.00.	Fast Joint, Brand Fast Joint, Broad Loose Joint, Japanned
Sobies Mfg. Co. Spell Mfg. Douglass Mfg. Co. Extra.	Fast Joint Narrowdis 60&2)4 9 Fast Joint Lt. Narrow
Cook's Dougla's Mfg. Co	Loose Joint, Broad
Lewis Patent Single Twist. Lewis Patent Single Twist. Lewis Patent Single Twist. Lewis Patent Single Twist. List of January 1, 1881. dis 25 %	Inside Blind Regular
Initation Jennings' Bits (old list)dis 60 % [ves' "Jennings" Bits (old list)dis 50&10 %	Loose Pin. Light
Sxpansive Bits, Clark's, small, \$18; large, \$26. dis 20% 105 Expansive Bits, Ives', No. 4, per doz., \$60—dis 25% 105	Geer's Spring and Blank Buttsdis 30 % Sabin Mfg. Co.'s Double Acting
Expansive Bits, Blake's	Union Spiral Spring, Japanneddis 25 9 Union Spring Hinge Co.'sdis 25 9
Hollow Augers, French, Swift & Co dis 25 % Hollow Augers, Douglass	Gem Spring Hinge Co.'s
Jollow Augers, Bonney's Adjust, # ds. \$48—dis 25&10 % Hollow Augers, Stearns' Adjust. # ds. \$48—dis 20&10 %	Union Mfg. Co
Hollow Augers, Universal Expan., each \$4.50—dis 20 \$ Wood's	Empiredis 60 %
Jimlet Bits. Diamond	Blind Butts Parker
Double Cut Gimlet Bits, Shepardson'sdis 40 % Double Cut Gimlet Bits, Ct. Valley Mfg. Co. dis 30% 10 %	Blind Butts, Seymour. dis 70&2 % Blind Butts, Lull & Porter. dis 75&10 %
Double Cut Gimlet Bits, Indevens	Blind Butts, Nicholson
Hollow Augers, Universal expan, each \$4.50-dly 20 \$ \$ Wood*s. dls 25, \$ imlet Bits. dls 25, \$ imlet Bits. dls 25, \$ imlet Bits. Diamond. \$\phi\$ dos. \$1.10, dls 262.0 \$ imlet Bits. Diamond. \$\phi\$ dos. \$1.10, dls 262.0 \$ imlet Bits. Bee . dls 25 \$ imlet Bits. Bee . dls 25 \$ imlet Bits. Gls 261.0 \$ imlet Bits. Ct. Valley Mrg. Co. dls 25 \$ 0 ouble Cut Gimlet Bits, Ct. Valley Mrg. Co. dls 264.0 \$ 0 ouble Cut Gimlet Bits, Houseland Gls. dls 40 \$ 0 ouble Cut Gimlet Bits, Houseland Gls. dls 40 \$ 0 ouble Cut Gimlet Bits, Pouglass dls 40 \$ 0 ouble Cut Gimlet Bits, Pouglass dls 40 \$ 0 ouble Cut Gimlet Bits, Pouglass dls 40 \$ 0 ouble Cut Gimlet Bits, Pouglass dls 40 \$ 0 ouble Cut Gimlet Bits, Pouglass dls 40 \$ 0 ouble Cut Gimlet Bits, Pouglass dls 26 \$ 0 ouble Cut Gimlet Bits, Pouglass dls 26 \$ 0 ouble Cut Gimlet Bits, Pouglass dls 26 \$ 0 oublet Cut Gimlet	Blind Butts, Manhattan Hardware Codis 70 % Blind Butts, Sargent's, Nos. 1. 3dis 60%&10 %
Watrous's Ship Augersdis 15 %	Blind Butts, Reading's Gravity
Sewing, Brass Ferrule \$3.50 \$\pi\$ gross-dis 40\$\text{81.05}\$ Patent Sewing, Short \$1.00 \$\pi\$ dosdis 40\$\text{81.05}\$ Patent Sewing, Long \$1.20 \$\pi\$ dosnet	45 and 55dis 70 % Blind Butts, Shepard's "Gravity," Nos. 1, 3 and 1
Patent Peg, Plain Top\$10.00 ¥ gross—dis 40&10 5 Patent Peg, Leather Top \$12.00 ¥ gross—dis 40&10 5	Shepard's Luil & Porter Sbutter Hingesdis 70&10 \$ Shepard's Reversible Shutter Hingesdis 70&10 \$
CHOMMedieu's Ship Augers	Inside Blind, Light
Awis, Patent Peg	Humason & Beckley Mfg. Co. dis 25 % Bradley's dis 25 %
Awis, Handled Scratch	\$16.40 10.00 21.40 24.00 27.00 20.00 21.40 26.40
3rad Sets, Alken's	New Haven Edge Tool Co.'s
Brad Sets, Stanley's Excelsior, No. 1, \$7.50. Brad Sets. Stanley's Excelsior, No. 2, \$4.00 dis 25&10 \$	\$3.00
Regular, Bronzed	Duplex
Double Steel, Bronzed	No. c, Iron Handle
Full Polished	Sardine Scissors
Regular, Bronzed	"Worlds Best " # gross, No. 1. \$12.00; No. 2, \$24.00
Steel Fole, Bronzed	Universal
Frazer's, in bulk Keg W D, 5c; Pail, W D 6c net	Champion
Axies.—Standard listdis 45 %	Hicks & Goldmark's F. L. Waterproof, 1-10's
Helis. — iand, Light Brass	E. B. Ground Edge, Central Fire, 1-10's
riand. White Metal	Musket Waterproof, 1-10's
Gong, Abbe'sdis 20210 % Gong, Yankeedis 30210 %	Eley's E. B
Gong, Barton's	U. M. C., F. L. ground
Crank, Cone's	U.M. C., Double W. Proof
Lever, Taylor's Bronzed or Plated	Musket, in 1-10's
Frager's, in bulk. Keg W D, 50; Pall, W B 50 net Frager's, in boxes. Frager's, in boxes. Frager's, in boxes. Frager's Pala neces. Glis 45 5 Pala neces. Glis 45 5 Belis iand, Light Brass. Glis 40 5 Gand, Extra Heavy Glis 5 Gand, Silver Chime Grassell Glis 7 Hand, Globe (Cone's Fatent). Glis 25 6 Gong, Abbe's. Glis 25 6 Gong, Abres. Glis 25 6 Gong, Annkee. Glis 25 6 Gong, Barton's Glis 25 6 Gong, Barton's Glis 25 6 Crank, Cone's Glis 25 6 Crank, Cone's Glis 25 6 Crank, Cone's Glis 25 6 Cever, Taylor's Bronzed or Plated Glis 25 6 Lever, Taylor's Bronzed Glis 25 6 Lever, Rasent's Glis 25 6 Cow, Common Wrought Glis 25 6 Cow, Western, Sargent's new list. Glis 6 Cow, Western, Sargent's new list. Glis 6 Cow, Western, Sargent's new list. Glis 6 Cow, Cow, Toxas Star Glis 6 Cow, Toxas Star Glis 6 Beiliews. Hand Bellows. Glis 25 Beiting Rasber. Glis 6 Extra Glis 6 E	Daniestic. \$\ \psi \ dos \ 83.00, \ dis \ 3.65 \ f \) Domestic. \$\ \psi \ dos \ 82.00, \ dis \ 5.5 \) Caps
Pull, Western	Carpet Stretchers.
Cow, Common wrought	Cast Iron, Steel Points
Cow, Kentucky "Star "	Bullard's
Nos. 0 1 136 4 5 6 Hog dis 60 %	Bissell No. 7 New Drop Panper dox. \$19.00 Bissell No. 12 Hall Sweeperper dox. \$42.00
Beilews. Blacksmiths Common	Casters.—Bed
Blacksmiths' Extra Pittsburgh Patterndis to % Molders'	Deep Socket
Beiting, Rubber. Standard	Payson's Antifriction
Extra dis 60 % Beiting and Packing Co	Humason, Beckley & Co.'sdis 70&10 % Sargent'sdis 70&10 % Hotchkias
Hench Stops- per dos &s.co-dis 10 5	Peck, Stow & W. Codis 3334&10 %
McGill's	Trace, 059-10-2
Extension, Barber's	German Halter Chain, list of Dec. 31. 1861dis 55 % German Coil, list of Dec. 31, 1881
Angular	American Coll 3-16 856 5-10 36 7-10 36
itind Fasteners. Mackrell's	Covert Halter. Hitching and Breast
Van Sand's Screw Pattern	Oneida Halter Chain (old list)
Merriman's	Jack Chain, Brass dis 65 6 Chaik, - White gross ooc net
Mo. rill's. Bit Fiolders. Extension, Barber's. Extension, Ives'. Extension, Ives'. W dos \$1.00-dis 40\$; 5 Extension, Ives'. W dos \$20.00-dis 40\$; Diagonal. W dos \$20.00-dis 40\$; Diagonal. W dos \$20.00-dis 40\$; Bilna Adjusters. Domestic. W dos \$20.00-dis 50\$; Extension Extension W dos \$20.00-dis 40\$; Bilna Adjusters. Domestic. W dos \$20.00-dis 50\$; Extension Extension W dos \$20.00-dis 50\$; Extension W dos \$20.00-dis 50\$; Extension W dos \$20.00-dis 50\$; Extension Extension W dos \$20.00-dis 50\$; Extension W dos \$20.00-dis 40\$; Extension Backeti's. W ashburn's Old Pattern W ashburn's Old Pattern W ashburn's Old Pattern Morriman's. Extension Extensio	Blue# gross 8cc net White Crayons# gross \$1.co net
Bar bed % II	Peck. Stow & W. Co
Bar bed % in Species Block Co	Socket Framing, Arlington Edge Tool Co. Socket Framing, Witherby Tool Co.
Penfield Block Co. L. & I Sheaves	Socket Firmers, Witherby Tool Co
Bits. dis socio s	Socket Framing and Firmer, Buck Blos
Cast Iron Shutter Bolts	Socket Firmer, Framing, &c., L.&L.J. White.dis 2 & 5 % Tanged Firmers
Wrought Square	Socket Corner Socket Framing and Firmer Buck Bios
Briss- Cast Iron Barrel Square, &c. dis 50&10 % Cast Iron Shutter Bolts dis 60&10 % Cast Iron Chain (Sargent's list) dis 60&10 % Cast Iron Chain (Sargent's list) dis 60&10 % Cast Iron Chain (Sargent's list) dis 60&10 % Very Patent Deor Bolts dis 50&10 % Wrought Barrel dis 50&10 dis 50&10 % Wrought Square dis 50&10 dis 50&10 % Wrought Shutter all Iron, Stanley's list dis 50&10 % Wrought Shutter, Brass Knob, Stanley's list dis 50&10 % Wrought Shutter, Sargent's dis 50&10 % Wrought Sunk Flush, Sargent's dis 50&10 % Wrought Sunk Flush, Sargent's dis 50&10 % Wrought Sunk Flush, Stanley's dis 50% 10 % Wrought Sunk Flush, Stanley Buttern dis 50% 10 % Wrought Sunk Flush, Stanley Buttern dis 50% 10 % Wrought Sunk Flush, Stanley Buttern dis 50% 10 % Wrought Sunk Flush, Stanley Buttern dis 50% 10 % Wrought	Clamps. Iron, Providence Tool Co.'s Wrt. Iron. dis 25 5 Iron, Adjustable, Gray's. dis 20 5 Iron, Adjustable, Lambert's. dis 20 5 Iron, Adjustable, Bow's. dis 40 5 Iron, Adjustable, Bow's. dis 40 5 Iron, Adjustable, Bow's. dis 40 5 Iron, Adjustable, Bow's. dis 50 6 Iron, Adjustable, Stearns' dis 20 6 Iron. Cabinet, Sargent's. dis 50 6 Iron. Carriage Makers', Sargent's. dis 50 6 Iron. Eberhard Mfg. Co. dis 40 6 Saw Clambs. See Vises Clima. Axis.
Wrought Sunk Flush, Sargent'sdis 75&10 % Wrought Sunk Flush, Stanley'sdis 50&10%; \$	Iron, Adjustable, Lambert's
Tarriage and Tire Common .	Iron, Adjustable, Stearns'
Carriage and Tire, Philadelphia, new listdis 70&10 % Carriage and Tire. Philadelphia Patterndis 70&5 % R. R. & W. Carriage (old list)	Iron. Carriage Makers', Sargent'sdis 562.10210 \$ Iron. Eberhard Mfg. Co
R. B. & W. Carriage Gold 1881	Ctips, Axie. Norway or destdis 60&10 %
1882. dls 78 1882.	Clips, Axio. Norway or Best. dis 60kto 5 Superior. dis 70 5 Cockeyes. dis 40 5 Cocks, Brass. dis 40 5 Cocks, Brass. dis 55 5 Globa dis 55 5
Alacalizata	77 7
Plow, R. B. & Wdis 50 %	Ale and Beer. dis 55 % Coffee Mills.—Board and Box. dis 50 %
Boit Euds dis 75 5 Heraz 120 @ 121@ ** ** ** ** ** ** ** ** ** ** ** ** **	Plain Bidds dia 45 Ale and Beer dia 55 Coffee Mills Board and Box dia 55 Coffee Mills Board and Box dia 50 Milson's dia 50 Selson's rat. \$0.50, \$10.50, dia 50 Selson's rat. \$0.50, \$10.50, dia 50 Selson's rat. \$0.50, \$1
Hering Machines. Upright Angulat First quality, no Augers \$5.50 \$6.75dis \$0.8 Phillips, with Augers 7.00	The "Bwift" (Lane Bros.)
Machine	100 100
isew Pina. Humason. Beckley & Co.'s, Nos. 1 and 2	Gla 60 % Bern is & Call Co.'s Dividers
Saunders Fatent, Extra Ded, \$0.50. mile 20 \$ How Fins. Humason, Beckley & Co.'s, Nos. 1 and 2	Bemis & Call Co.'s Wing & inside or outside. dls co&5 % Bemis & Call Co.'s Double. dls 60 % Bemis & Call Co.'s (Call's Patent Inside)
Peck, Stow & W. Co. dis 30&10 \$ Braces - 2. S. Backus	Excelsior. dis 50 % Cook's Extension. dis 25 %
Barder's	J. Stevens & Cos Campers and Dividersdis 252 105 Coopers' Tools. Bradley's
Common Ball (American). dis 5, 8 Amidon's dis 5, 8 Barker's Imp'd dis 5, 8	Calipers
Company dia and	Compagn & Bookly Mfg Co
Brackets - Shell Flain	Clough's Pat voe and Cutters.—Bradley's. dis 33% g Corn Katvoe and Cutters.—Bradley's. dis 25 g Wadsworth's.—Cast Stool. \$\psi\$ b dc Iron, Steel Points. \$\psi\$ b dc
Reading, Rosette dis fo&5&10 \$	iron, Steel Points # B 4140

Har	dware Prices,	
dis 70&10&	Hetchkiss, Exclr. Supr. Champion	
dis 65%&10 dis 15 dis 70 dis 73% & 10	Silvered Gless net	: 11
dis 80 ; dis 40 ; dis 20 & 10 ; dis 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10	Am. Miller Bro.'s Cutlery Codis 25 % Humason & Beckley, Pocketdis 33/5 %	1
dis 60810 9		
dis 60&10 9 dis 60&10 9 ipsdis 60&10 9	Gray's Rod	20
dis 60&2\6 9 dis 60&2\6 9	No. 1, Large Japanned \$\(\pi \) dos \$4.00'\) No 2. Medium, Japanned \$\(\pi \) dos \$2.75\) No 3. Small, Japanned \$\(\pi \) dos \$2.00\) No 4. Small, Japanned \$\(\pi \) dos \$2.00\) No 4. ("Shor Fly") Serven door size, \$\pi \) dos \$81.50\)	8170
dis 60&2½ 9 dis 60&2½ 9 dis 60&2½ 9 dis 60&2½ 9 dis 60&2½ 9	No. 5, Screen Door size	TTC
dis 40&5 % dis 30 % dis 35 % dis 25 9	Philadelphia 5 in., \$5,00; 8 in., \$7.75, dis 35 \$ Cowell's No. 1, \$1 dos. \$10.00; No. 2, \$15.00, dis 50 \$	F
dis 30 %	Drawing Knives. dis 70	FHASIG
dis 25 % dis 25 % dis 25 % dis 25 % dis 26 % dis 60 % dis 70 % dis 50% 10 %	Adjustable Handledis 20 %	GCOM
dis 70&2 %	Douglass	I
dis 45&10 %dis 50 %dis 75&2 %dis 70 %	Breast, Hotchkiss dis 20 % Breast, Wilson's dls 25 % Breast, Millers Falls each, \$3 co, dls 25 % Breast Bartholomew's each, \$2.50, dls 25 % Ratchet, Merrill's dls 26 %	H
	Ratchet, Ingersoll's	H
dis66%&to % Nos. 50, 60, 65, dis 70 % os. 1, 3 anddis 70&to % dis 70&to % dis 70&to % sdis 70&to % 8. 0, 1, 13%, 2,dis 60&to %	#12.00 dis 2c&10 \$ #10.00	U
dis 25 %	Moree's Deach Patcht	L
33.50 95.50 dis 30&10 % see Compasses	National # dos. \$4.50, dis 33\6 \$ Standard # gross, \$18.00, dis 25 \$	C.
met, @ dos, dis 25 % s \$6.00, dis 30 % scc. dis 15@20 %	ACID	81
8 83.75, dis 20 5 8 82.25, dis 55 5 8 80.00, dis 30 5 2 82.50, dis 10 5 2 82.50, dis 25 5 5.00, dis 2585 5 8 80.00	Mill E. Buckets, light, 3/5 to 10 in. (Duc's Improved). \$\pi 10.0 \text{ \$\frac{3}{2}\$ \cdot \c	Ci
No. 2, \$24.00	For Emery Paper and Cloth see Sand Paper. Enameted and Tinned Ware. Kettles. dis 60 % Sauce Pans. dlu 30 %	Pe
3.00, dis 3585 % 8 82.50, dis 45 % 8 82.00, dis 50 %	Enameted and Tinned Ware, dis 60 \$ Settles dis 20 \$ Sauce Pans dis 30 \$ Tinned Sauce Pans dis 90 \$ Secutcheon Pins, Brass dis 50 \$ Secutcheons Door Lock Same discounts as Door Locks Brass Thread dis 55 \$ Wood dis 25 \$ Wood dis 2	A
	Wood. dis 25 5 Faucets. dis 40 5 Eohren's Patent Rubber Ball dis 25 5	W
Boc net	Cork Lined Cork Lined Cork Lined Cork Lined Cork Cork Cork Cork Cork Cork Cork Cork	Gi Gi Gi
00 dis 158:10 \$	Metallic Key, Leather Lined	Ga Ga Ro Ro
dis 10&5 % \$1.40 dis 10 \$750 dis 10 \$800, dis 3314 \$ 64—dis 50&10 \$	Metallic Rey, Loather Lined	Re Pl
dis 3336 % dis 10 % g., '83, dis 10 % g., '83, dis 10 %	J. & Riley Carr Horse Rasps dis 10%	He
84.00. dis 30 % 2.00, dis 50&5 % \$2.50, dis 25 %	H. Diaston & Sons 10 10 10 10 10 10 10 1	w
per dos. \$17 00 per dos. \$19.00 per dos. \$42.00 dis 50 \$	Butcher's Moss & Gambie Dew list, dis 1	Se His Mis
dis 50 %dis 50 %dis 50 %dis 25 @ 3334 %dis 25 @ 3334 %	Knox, 4½-inch Rolls	Bi
dis 50 \$dis 70&10 \$dis 70&10 \$dis 25 \$dis 33\s&10 \$	## Western ## ## ## ## ## ## ## ## ## ## ## ## ##	Co Co Be Be
r 790 dis 40 %	Crown Hand Fluter, Nos. 1, \$15; 2, \$12.50; 3, \$10.00 \$\tilde{\pm}\$ dos. 4ls 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 85. per dos \$14, dia 40 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 110. per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per dos \$8.75, dis 30 \$\tilde{\pm}\$ Shepard Hand Fluter, No. 30 per	Ck
dia cc %	Clark's Hand Fluter per gos \$1,00, dis 33½ \$ Combined Fluter and Sad Iron # dos \$1,00, dis 30 \$ Buffalo \$ Buffalo dis 20,00, dis 10 \$ Fluting Sciences dis 4 \$	Co Wi
7-10 36. 7-10 36. 7-10 36. 04. 0534 04. dis 408:10 %	Combined Fluter and Sad Iron. 9 dos 21,00, dla 90 5 Buffalo. 9 dos 20,00, dla 10 5 Fluting Scissors. 9 dos 20, net Forks. Hay Traps. Paragon. 9 dos 20, net Forks. Hay Manure and Spading. dis 90 5 Plated, A 1, Rogers & Bro. dis 50 5 5 Flated, Holmes, Booth & Hayden's dis 50 20 5 Fruit and Jelly Pressos. Enterprise Mfg. Co. dis 20 20 5 Fry Rose. 10 5	Pic Ta Wi
dis 45 % D 7560 net dis 65 % Gis 65 %	Burnished list as followsdis 60&10&10 %	Gr. WI Ho
gross soc net gross soc net gross \$1.00 net ross 12/40 nes	G Marking Stanley's dis 55&10 %	Au
dis. 70 @ 70 & 10 \$	Marking, Chapin's dis 55£10 5	Pu Vu No
dis 27% %	"Diamond "Gimlets dis joëto \$ Double Cut, Shepardson's dis ao \$ Double Cut, Ives dis 45 & 10 & 10 & 10 & 10 & 10 & 10 & 10 & 1	Gla. C. Ch Ne
dis45 %	Family, Howe's " Eureka "dis 40 %	Bri Sai Ch Ca
dis 25 %	Reading Hardware Codis 306 10 %	R. I. W.
dis 20 %dis 40%5 %dis 15 %dis 20%10 %dis 70%10 % iis 65%10%10 %	U. M. C. B. E., 9810. 3.90 U. M. C. B. E., 788. 3.60 U. M. C. P. E., 11 up. 3.10 U. M. C. P. E., 9810. 400 U. M. C. P. E., 9810. 400	Mul
dls. 40£5 % Bee Vises dis 60£10 %	Eley's B. E. 3.00 Eley's P. E. 3.00 Hack Sa.ws. complete	No Wi Du We Iro
dis 70 %dis 40 %dis 55 %dis 55 %dis 55 %dis 55 %dis 55 %	Griffin's Hack Saw, Blades only. dis 20t to 5 Halters.—Covert's Pat. Rope	Ice Ice Coi
dis 55 %dis 50 %dis 50 %dis 25 %dis 26 %dis 26 %dis 26 %dis 26 %dis 26 %dis 26 %	Mencely's Horse and Cattle Ties	Saf AN Fai
dis 20&10 \$dis 20&10 \$dis 45@50 \$	Kip'sdis 30 % C. Hammond & Sondis 40 %	K Bra En
dis 60 %	Nelson Tool Works dla 40%10 % Warner & Noble's dls 10 % Yerkes & Plumb dls 30 % Wilkinson's Smiths' 11366 % % net	Nic Am
ledls 50&5 \$dls 60 \$dls 30 \$dls 50 \$dls 50 \$dls 25 \$dls 25 \$dls 25 \$	Providence Tool Co., Hand Cuffs, \$15.00 \$ doz.dis 10 \$	Mo Ha Tal
.dis 25& 10% .dis 10 @ 20 % dis 20 % d ⁴ s 20& 5 %	Handles Door or Thumb Latches. Nos	Baz He: Do: Do: Do:
dis 3314 \$dis 3314 \$dis 3314 \$ y'sdis 20 \$dis 26 \$dis 26 \$	Bronze Iron Drop Latches	Fu Fu
₩ D 6c	Wrought Chessdis 70 % Surface Chestdis 608:10 % Flush Chestdis 70 %	Ho

nbs. dis so&ro 5	Lifting. dis 60km s 8aw and Piane. dis 40km s Boynton's Loop Saw Bandtes. 50c. dis 40 boynton's Centenniai Saw Handles 50c. dis 24 Harmer and Hatches	Ladles. Melting, Sargent's
welty, new list, July, 1880dis 50&20 5 clr. Supr. Champion	Boynton's Centennia Baw Handles	Melting, Reading. Melting, Morroe's Patent. Melting, P. S. & W. Eberhard Mig Co. Lanterns.—Tubular, Standard No. o
Meriden Cutlery Co. (Table)	Hickory Firmer Chisel, assorted, # gross . 5.00 Apple Firmer Chisel, assorted, # gross . 5.00 Apple Firmer Chisel, assorted, # gross . 5.00 Apple Firmer Chisel large # gross . 6.00	Lanterns.—Tubular, Standard No. o. Tubular, Standard No. i. Tubular, Lift Wire No. o. Tubular, Lift Wire No. i. Guards for Tubulars. No. i & doz \$10. Meteor.
eckley, Pocketdis 33/2 % ithery Colist net	Socket Firmer Chisel, assorted, # gross 3.00 dis Socket Framing Chisel, assorted, # gross 5,00 25&10 File assorted, # gross. 2,75	Guarda for Tubularsadd Nail CityNo. 1 % doz &10: N MeteorNo. 1 % doz &2: N MeteorNo.
i Beriden Cutlery Co. (Table). net Co.'s Cutlery Co. (Table). net Co.'s Cutlery Co. dis 2 5 ct. (18 2 18 2 18 2 18 2 18 2 18 2 18 2 18	Auger, assorted, # gross	Hurricane, No. 1
	Patent Auger, Douglass'	Ætnå. Yankee De Beque
regular size, # doz., \$3dis 50 % — per gross, \$20.00, dis 20 % — per gross, \$30.00 dis 20 % I, per doz, \$1.50; No. 2, per doz. \$2 net	Barn Door, New England	Convex Reflector
Japanned # doz \$4.00 } dis 50 & 10 \$	"Champion" Medina Mfg. Co815; dis 50&10 %	Clipper
Japanned ♥ dos \$4.00 m. Japanned ♥ dos 2.75 Japanned ♥ dos 2.75 Japanned ♥ dos 2.00 Japanned ♥ dos 2.00 F Cop d, Sickel-Piated &c. see list. "")Screen door size. ♥ dos \$1.50 Door size ♥ dos 2.00 m ♥ dos 2.00 dis 60 %	Double Cut, Hartwell's	Continental Philadelphia Lomous Squozzers.
m	Sterling Improved (Anti Friction)	Continental. Philadelphia Lemon Squeezers. Porcelain Lined. Wood. Eureks, Tinned. Ood Dunlan's Improved. Sammis'. No. 1,8; 2,8; 12,818 ¥ dos. Townsend's Patent. Leu-lines 'Star' The 'Boss' Dean's Nos. 1, ¥ dos. \$1,00; 1,800 S,84. Lines.—Linen Fish. Cotton Chalk.
m. \$\begin{array}{cccccccccccccccccccccccccccccccccccc	Cronk No. 4, \$12; No. 5, \$14.40; No. 6, \$18; 018 to \$ Architect, \$2 set \$6.00; dis 20 \$ Edit \$2 set \$6.00; dis 20 \$	Sammis'No. 1,84; 2,80; 12,818 W dos. Townsend's Patent
No. 1, \$\pi \dos. \\ \frac{1}{815.00}; \text{No. 2, }\ \\ \frac{815.00}{155.00}; \text{dis 50 }\ \\ \frac{1}{155.00}; dis 20\$\text{dis 20\$\tex	Harness Snaps.—Anchor (T. & S. Mfg. Co.), dis 65 %	The "Boss"
K nives. e Tool Codis 70 %	Juda's, list of 1½ changed to \$14.00	Cotton Chalk. Silver Lake, Braided, Nos. o, \$6.00; No. 1, 2, \$7.00; No. 3, \$7.50 \$ gross. Masons' Linen, No. 356, \$1.50; No.
dis 65&10 % dis 15 % e	Andrews' dis of Sargent's Patent Guarded. dis ooklock to German, old list. dis 7,5 German, Sargent's new list. dis ooklock to German, Sargent's new list.	Masons' Linen, No. 3½, \$1.50; No. 4½, \$2.50. Masons' Colored Cotton. Wire Clothes. Galvanizedeacl
dis 20 d	Covered Spring new list, Oct., 1882	Wire Clothes, Galvanizedeach Locks and Latches, Cabinet, Eagle
Drill Stocks. each, \$2.50, dis 20 %	Mencely's Imp. German (Old German list)dis 60&10 % Hatchets, Isalah Blood	wire Ciotaes, Galvanized eac Locks and Latches, Cabinet, Eagle Changes made it Cabinet, Gaylord some number Cabinet, P. & F. Corbin 1884, dis 45&2 \$ Cabinet A. E. Deitz. Cabinet Stoddard Lock Co. A. E. Deitz Flot Kes Deeven
each, \$2.50, dis 20 \$ elf-Feeding. each, \$7.50, dis 20 \$ elf-W dis 20% to \$ iss' dis 20% to \$ iss' dis 20% to \$ iss' dis 20%	Hetchets	Caonee stoodard Lock Co. A. E. Deitz Flat Key Drawer Yale "Standard' Drawer and Desk "Shepardson" or "U. S." "Felter" or "American" Eagle Trunk Branford.
138"	Claw Nos ves	"Felter" or "American" Eagle Trunk
soll'sdis 25 % 1ey'sdis 20%10 % On "dis 20%20 %	Lathing, Nos. 12 3	Morespolle
16 16 16 16 16 16 16 16	Lathing, Nos. 123.	Norwich. P. & F. Corbin. P. & S. Corbin. P. & S. Corbin. P. & B. Corbin. P. & B. Corbin. P. & B. Corbin. Dis 6c&2 \$, ca vised List of Vised List of Nimick & Brittan Hard-
Hocksdis 10 % ing Toolseach, \$2.24, dis 20 %	Claw, Nos. 12 3	Mallory, Wheeler & Co Nimick & Brittan Hard- ware Mfg Co
ks., Patenteach \$8.00, dls 20 \$ ableeach, \$7.00 dls 20 \$	Bhingling, Nos. 12 3	ware Mfg Co
rs. # dos. \$2.50	Latzing, Solid Steel	Flate. F. Many's "Extension Cylinder"\$10. Barnes Mfg. Co Vale Flat Key
# dos. \$4.to, dis 33/5 # dos. \$4.to, dis 33/5 # dos. \$4.to, dis 33/5 # # dos. \$4.to, dis 33/5 # # gross, \$18.co, net # gross, \$18.co, net # gross, \$12.to, net # gross, \$11.to, net # gross, \$11.to, net	Shinging, Nos. 12 9	stoddard surniture Locks
S Mfg. Co.)	Birmons	Flat Key Latches
heavy s to 10 in. (Duc's Improved),	Birmons	Russell & Erwin Mallory, Wheeler & Co. Nimick & Brittan Mg. Co. vised List of I Wm. Wilcox & Co Vale Lock Mg. Co.'s "Standard" Eagle Komer's
\$10.20. dis 10 % c's Patent), 12 to 17, \$12 @ \$20. dis 10 % rular numbers. # B 80 % # B 60 %	Broad, Nos. 5 7 8 4 008 16.00 18.00 20.00 22.00 COllina	Wm. Wilcox & Co Vised List of I
er and Cloth see Sand Paper. and Tinned Ware. dis 60 \$	Lathing, Nos. 123	Yale Lock Mfg. Co.'s "Standard" Eagle komer's.
ans	Lath, Nos. 12 3 9 doz 8.00 8.50 9.00 Claw, Nos. 12 3 9 doz 8.00 0.50 10.00 Half, Nos. 12 3 9 doz 8.00 0.50 10.00	Conestoga. scandinavian (Moore Bros.)
Same discounts as Door Locks	Broad. Nos. 123	A. E. Dietz.
dis 25 %	Hay M.nives.—"Lightning" ₩ doz \$20,00dls to \$ Wadsworth	Barnes Mir. Co
t Rubber Bail. dis 40 5 pps. dis 33 5 pps. dis 334 5 Petroleum. dis 264 10 5 Cey dis 45 5 Cey dis 45 6 cesther Lined. dis 60 5	Hay	Malieta.—tickory. Lignumvitæ. Penneld Block Co., Lignumvitæ & Hickor, Meat Cutters. Dixon's (P. S. & W.), Nos. 1 2 3
Petroleumdis 25&10 % Keydis 45 %	Gate. Clark's. Nos. 1 2 3	Dixon's (P. S. & W.) Nos. 1 2 3 # dog\$14.00 17.00 10.00 3 Miles' Challenge
eather Lineddis oo \$	Gate, Seymour's	Miles' Challenge
rk Lined, 1st qualitydis 50 % amond Lockdis 40 %	Rolled Blind Hinges .dis 60&10 % Rolled Plate .dis 60&10 % Rolled Raised .dis 60&10 %	Hales'
dis 00 5	Flate Hinges 5, 10 & 12 in., \$6.55 \(\pi \) 100 \(\pi \) dis 10 \(\pi \) "Providence" \(\pi \) over 12 in., \$4.50 \(\pi \) 100 \(\pi \) \(\pi \) dis 10 \(\pi \) Serew Hook and \(\bar{8} \), 10, 12 in. \$6.75 \(\pi \) 100 \(\pi \) \(\pi \) dis 10 \(\pi \)	
Horse Raspe dis 10 %	Gate, Common Sense.	American
new list, dis 15 %	Screw Hook and Eye	Nos
dis 4c&10 %	Hoes.—Riveted Shank. dis 604.5 Socket. dis 50 4.5	Neser's No. 55. \$40
Color Colo		Silver & Deming. Pennsylvania. Nos. \$4 dos. \$24,00 28.00 36.00 Beef Shavers (Enterprise Mifg. Co.).
chines. Rolls	Grub	# dos
Roll	Holsting Apparatus. Moore's "Hand Hoist, with Lock Brake dis 155" Moore's "Hand Hoist, with Lock Brake dis 155" Moore's "Hand Hoist, with Lock Brake dis 265" Hooks—Bird Cage, Sargent's list dis 265:05 Bird Cage, Reading dis 468:05 Cotton Cotton Patented (N. Y. Mallet & Handle W. &s., dis 265 Cotton (Humason & Beckley Mig. Co) dis 265 Cotton (Humason & Beckley Mig. Co) dis 265 Belt dis 805	Mineing Knives. Am. (2d quality), ♥ gross, I blade, \$7 2 hl 3 blades, \$18.
#3; 0-1n., #3.40; 7-in., #4.50 each, dis 35 %	Cotton Patented (N. Y. Mallet & Handle W'ks), dis 30 \$ Cotton (Humason & Beckley Mfg. Co)	Lothrop's. Bmith's. # dos. Single, \$225; Double, \$3 Cowles How. Co. Molasses Gares.—Stebbins Patterns. Stebbins Genuine.
uter, White Metal # dos \$12, dis 25 \$ luter, Nos. 1, \$15; 2, \$12.50; 3, \$10.00 dis 30 \$	Cotton (Humason & Beckley Mfg. Co). dis 20 5 Belt dis 80 8 Bench Hooks. see Bench Stope Clothes Line, Sargent's list. dis 6x50 5 Clothes line, Reading list. dis 4x5x50 5 Celling, Sargent's list. dis 6x50 5 Celling, Sargent's list. dis 6x50 6x10 5 Harness, Reading list. dis 6x50 6x10 5 Coat and Hat, Sargent's list. dis 6x50 6x10 5 Coat and Hat, Sargent's list. dis 6x50 6x10 5 Coat and Hat, Reading. dis 9x50 6x10 5x10 5x10 5x10 5x10 5x10 5x10 5x10 5	Stebbins Genuine Stebbins Tinned Ends Chase's Hard Metal Bush's Lincoln's Pattern
luter, No. 85per dos \$15, dis 40 % luter, No. 110per dos \$8.75, dis 30 % luter, No. 95per dos \$6.50, dis 20 %	Ciotnes line, Reading list	Lincoln's Pattern. Weed's. Boss Nos. r 2 3 4 87.00 8.00 9.00 10.00. \$\dot dos. di
Tuter, No. 65	Coat and Hat, Sargent's list	Nails
108 108	Picture Hooks, Brown's Pat. Bolia Brass, \$4.00 9 gross	Nails
Booth & Hayden'sdis 50&10 % elly Presses. Codis 20&10 %	gross. dis 25 tassel and Picture (T. & S. Mfg. Co.) dis 25 tassel and Picture (T. & S. Mfg. Co.) dis 50 fWrought Staples and Hooks & Staples. dis 70%7/56705 Wrought Staples. Stanley's list dis 70%7/56705 Wrought Staples. Stanley's list dis 70%7/56705 Wire Screw Hooks and Kyes new list dis 70%7/56705 Grass and Sush dis 55 twiffstree—Parent dis 55 twiffstree—Parent dis 55 twiffstree—Parent	Washers. Nut Crackers.
a followsdia 60&10&10 % 1 2 3 4 5 6 7 8 3-75 4-25 4-75 5-25 6.00 7.00 88 10 4.00 0.00	Grass and Sush	Table (Humason & Beckley Mfg. Co.)
**************************************	Hooks and Eyes—Brass	Hexagon Nus. Nut Crackers. Nut Crackers. Table (Humson & Beckley Mfg. Co.). Blake's Pattern.
anley'sdis 55&10 % dis 55&10 % dis 75&10 %	Clinton, Fin., # B 24c 22c 21c 20c 19cdis 25&10 % Clinton, Fin., # B 24c 22c 21c 30c 19cdis 25&10 %	Ollers.—Zinc and Tin
Madden & Codis 10 %	Essex. # B31c 38c 26c 25c 24c 23cdis 3355 % Putnam "27c 24c 22c 21c 20c 19cdis 62c 7 Vulcan. "26c 23c 21c 20c 19c 18cdis 1256 %	manicaole (manimer's, No. 1, \$3.5; No. No. 5, \$4.00 \(\) dos. Not. No. 5, \$4.00 \(\) dos. Not. Prior's Patent or "Paragon" Zinc " dl Prior's Patent or "Faragon" Brass. Olmstead's, Tha and Zinc. Olmstead's, Brass and Copper Broughton's, Zinc. Broughton's, Brass.
etsdis 40&10 % nletsdis 40&10 % pardson'sdis 40 %	Globa " 260 220 210 200 100 100 100 100 100 100 10	Olmstead's, Tin and ZincOtmstead's, Brass and Copper
glass'dis 45&10 % glass'dis 40 %	C. B.—R. 200 250 230 220 210 200dls 1085 5 Champlath 310 280 200 240 240 23.0dls 3335 5 New Haven 310 280 200 250 240 230dls 3335 5	Packing, Steam, N. Y. Belting and Packing Co.
meled	Bridgewater, 240 210 190 190 170 100dls 40 % Saranac, 200 230 210 200 190 180dls 10% % Champion, 280 240 240 220 210 200dls 10% %	Pencils.—Faber's Carpenters'high Faber's Round Gilt
# 1 X S HARLEY	C. R. S. 180 280 280 280 280 280 280 280 280 280 2	Broughton's, Brass. Dacking, Steams. N. Y. Belting and Packing Co. Penells.—Faber's Carpenters
up	Walker's Forged, Light, Med. or Heavy . keg \$3.5754 Mule shoes	Adze Eye. 5 to 6. \$12.00; 6 to 7, \$13.00 Picture Nails. Brass Head, Sargent's list
8.30 8. 8.00 10. 8.00 10. 4.00 10. 4.00	ce Awis, Chisels, &c. American Ice Chisel, Pol'd doz \$3.co dis 10 g	Brass Hoad, Sargent's list Brass Hoad, Sargent's list Brass Hoad, T. & S. Mfg. Co., Porcelain Head, Sergent's list Porcelain Head, T. & S. Mfg. Co.
iB	Novelty Ice Breakers	Porcelain Head, T, & S. Mrg. Co
ack Saws, completedis 40&10 % aw, Blades onlydis 20&10 %	Wood Head Picks, Sargent's # dos \$1.60 dis cotto \$ iron Head Picks, Sargent's # dos \$1.25 dis cotto \$ ico Mallets, Pick in head # doz \$1.75 dis 15 \$1	Pinking Irons. # Pinking Machines. Magic # Piniting Machines. Magic # Piniting Machine. * Crown Plaiting Machines. **
vert's Pat. Rope	Ice Mallets, Pick in Handle	Crown Plaiting Machines
tope and Webdis 40&10 h and Cattle Ties	ice Cream Freezers	Molding
Maygole's dis 1; \$ st. March. 1883. dis 2; \$ st. March. 1883. dis 2; \$ st. France dis 2; \$ st. France dis 2; \$ st. Riveting and Farrier. dis 25; \$ st. Riveting and Riveting a	White's Sliding Head Picks. # dos \$2 so dis 40 s Dunlap's Ring Picks. # dos \$2.00 dis 20 s Wood Head Picks, Sargent's. # dos \$1.00 dis 20 s loc Mis	Bailey's "Victor" Plane Irons, Butcher's\$500 Plane Irons, Buck Bros
Son	Etiles. 7 to 17 Inches inclusive	Bench, Second Quality. Molding. Failey's (Stanley R. & L. Co.) new list, Jan. '75 The Stanley (S. R. & L. Co.) new list, Jan. '75 The Stanley (S. R. & L. Co.) new list, Jan. '76 Bailey's "Victor". Plane Irons, Butcher's
kley	Enameled	L. & I. J. White
tha' dis 10 %	Ames' Shoe Knivesdis 15 %	Piters and Mippers.—Button's Patent Hall's Pat. Compound Lever Cutting Mippe 5 in., 81.50; No. 4, 7 in. 821.00 dos Humason & Beckley Mfg. Co.
dis 30 % that di	Moran's Shoe and Bread Knives. dis 20 % Hay and Straw, see Hay Knives. See Cutlery Table and Pocket. See Cutlery	THE PHOPS
27.0	Base. Rubber Tipdis 70&10&5	Eureka Piiers and Nippers Russell's Parallel. P. S. & W. Cast Steel. P. S. & W. Tinners' Cutting Nippersadd Plumbs and LevelsDisston's. Stanier R. & L. Co.'s Pat. Adjustable. Stanier R. & L. Co.'s Non-Adjustable. Chapin's Patent Adjustable. dis Standard Rule Co.'s New Adjustable. Standard Rule Co. 's New Adjustable. Standard Rule Co. 's Non-Adjustable. Johnson's Patent Adjustable.
o Leo 1.18 1.35 1.46 dis bodio \$ 1	Door Por. Jap'd Bame discounts as Door Locks. Door Por.	Stanley R. & L. Co.'s Pat. Adjustable Stanley R. & L. Co.'s Non-Adjustable Chapin's Patent Adjustable
P Handles—Nuts, \$1.62; Plate. \$1.10; net	Furniture Plain	Chapin's Non-Adjustabledis Standard Rule Co.'s New Adjustable Standard Rule Co.'s Non-Adjustable
dis to \$dis 70 \$	Hemacite Door Knobs new list, dis 35&5 x	Johnson's Patent Adjustable Pocket Levels
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ic %	Tadles, discount's discount
10 % 50 % 25 %	Ladles. Melting, Sargent's
20 %	Meiting, P. S. & W
	Lanterns.—Tubular, Standard No. o. er dos \$7.50
	Lanterns. — Tubular, Standard No. o. er doz \$7.50 Tubular, Standard No. 1
dia &10	Guards for Tubularsadd per dos 23
-	Meteor. No. 1, 9 doz, \$9.50; No. 2, \$8.50, net
25 %	Peerless, No. 5,
net	Etnadis 10&10 \$
10 %	De Bequedis 10&10 \$
10 %	Convex Reflector
50 %	Buckeye
10 %	Pennsylvaniadis 3c&c&3 %
10 %	Philadelphia dis 3:4543 %
50 %	Porcelain Lined
50 % 10 %	Eureks, Tinned
10 %	Sammis'No. 1, \$6; 2, \$9; 12, \$18 \$ dozdis 20610 \$
% os	The "Boss"
55 %	Dean's Nos. 1. W dos. \$15.00; 9, \$9.00: 3, \$5,50. dis 10210 %
55 %	Cotton Chalkdis 55 g
10 %	2, \$7,00; No. 3, \$7.50 \$ gross
4%	Masons' Colored Cotton dia a s
0%	Wire Clothes, Galvanizedeach 250@400 net
0%	Cabinet, Eagle
15 %	Cabinet, A. E. Deitsdis 4582 % cash.
5	A. E. Deitz. Flat Key Drawerdis 30 %
0 %	"Shepardson" or "U.S."dia 35 %
5	Folice Small, \$0.25; MeG., \$7.50; Large, \$10.00. dl. 105 Convex Reflector. \$2.7 vlos. dl. 12 t. \$1.4 wm Wovers. Excelsior. \$2.7 vlos. dl. 12 t. \$1.4 wm Wovers. Excelsior. \$2.7 vlos. dl. 12 t. \$1.4 wm Wovers. \$2.7 vlos. dl. 12 t. \$2.4 vlos. \$2.5 vlos. \$2
5%	Branford
0	Branford. DOOR LOCKS, ETC. Branford. DOOR LOCKS, ETC. Norwalk. Norwich. P. & F. Corbin. Dis 6c&2 %, cash, from Re- vasell & Erwin. Wallory, Wheeler & Co. Nimick & Brittan Hard- ware Mfg. Co. Whipple Mfg. Co.
5%	Nashua Dis 6c&z %, cash, from Re-
5	Mallory, Wheeler & Co., Nimick & Britan West
5%	ware Mfg Co
5	Reading Hardware Co. (rev. list Jan. 2, '84). dis 60&10 %
0 %	P. & F. Corbin Nashua. Russell & Erwin. Mallory, Wheeler & Co. Nimick & Brittan Hardware Mg. Co. Whipple Mg. Co. Whipple Mg. Co. Weading Hardware Co. (rev. Hat Jan. 2, '84). dia 6-& to 5 Plate. Chang's "Extension Cylinder". Barues Mg. Co. dia 33-6& 2.5 F. Many's "Extension Cylinder". dia 33-6& 1.5 Barues Mg. Co. dia 36 d
5 %	Yale Flat Keydis 40 % Diets Flat Keydis 40 %
9	*toddard Furniture Locks
0	Langstroth & Crane's :dis 40 %
5%	Vale Flat Key .dls 40 % Dietz Flat Key .dls 30 % †toddard eurniture Locks .dls 30 % \$toddard Hasp Locks .dls 40 % \$toddard Hasp Locks .dls 40 % Langstroth & Crane's .dls 40 % Round Key Latches .dls 40 % Flat Key .dls 30 % Russell & Erwin
0	Russell & Erwin
0 %	Nimick & Brittan Mfg. Dis 45 & 2 % cash, from R
0	Wm. Wilcox & Co Norwich Lock Co
0	Yale Lock Mfg. Co.'s "Standard"dis 4 Eagledis 2
3	Romer'sdis 25 @ 40
	Romer's dis 2 (do 40 Conestora dis 3 (do 40 Conestora dis 60 Seandinavian (Moore Bros.) dis 80 J. H. McWilliams dis 10 L.
	A. E. Diets
	Fraim & Bro. List of 1883-84dis 55&5 % Barnes Mis. Co.
et	Luntra4 oz. bottles. # doz. \$1.75 # gross \$17.0 net
3	Penfield Block Co. Lignumvitan & Hickory
8	Ment Cutters, Dixon's (P. S. & W.) Nos. 1 2 4
8	Miles' Challenge
X X	Perry's, Nos. 1 2 3 4 4 8'rd 5 g'rd
18	Each \$3.00 4.00 5.00 11.00 13.00 26.00 dia 25 8 4
1%	Woodruffs (P. S. & W.)Nos. 100 150
5 5	Woodruffs (P. S. & W.)Nos. 100 150 150 16.00—dis 40 % Hales'Nos. 11 12 13
***	Woodruffs (P. S. & W.)
** *	Woodruffs (P. S. & W.)
× × ×	Woodruffs (P. S. & W.)
7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Woodruffs (P. S. & W.)
S S S S S S S S S S S S S S S S S S S	Woodruffs (P. S. & W.)
NA N	Woodruffs (P. S. & W.)
THE RESERVE	Woodruffs (P. S. & W.)
2万万万万万万万万万万万万万万万万万万万万万万万万万万万万万万万万万万万万	Woodruffs (P. S. & W.)
THE BEST BEST TO THE B	Woodruffs (P. S. & W.)
25.55 5 鬼 化	Woodruffs (P. S. & W.)
25.00 5	Woodruffs (P. S. & W.)
2万元 5 元 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Woodruffs (P. S. & W.)
2500 5 鬼 电	Woodruffs (P. S. & W.)
2.500 5	Woodruffs (P. S. & W.)
2.7.5.5. 5. 16. 18.5. 1	Woodruffs (P. S. & W.)
2. 19 15 16 16 16 16 16 16 16 16 16 16 16 16 16	Woodruffs (P. S. & W.)
2.75.5 篇 理 C	Constona dia 60 scandinavian (Moore Bros.) dia 60 scandinavian (Moore Bros.) dia 80 J. H. McWilliams dia 16 scandinavian (Moore Bros.) dia 95 scandinavian (Moore Bros.) dia 95 scandinavian dia 16 scandinavi
2.500 A 鬼 化 自然 自治院医生院检查 医医耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳耳	Woodruffs (P. S. & W.)
X MWX	Nuts and Washers(In lots less than 100 b w n add 1/2 to list; 1 lb. boxes, add ic to list.) Square Nuts
X MWX	Nuts and Washers(In lots less than 100 b w n add 1/2 to list; 1 lb. boxes, add ic to list.) Square Nuts
* ********	Nats and Washers
A RESERVED SERVESTANTANTANTANTANTANTANTANTANTANTANTANTANT	Nuts and Washers
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Post Hole and Tree Augers. Samson Post Hole Digger	Mallett & Co.'s Double Action Clutch # dor, 4 In., \$7.00 5 in., \$8.00; 6 in., \$0.00—dis re Champion
Eureka Diggers \$\psi\$ dos \$27.00	Clariform dis 2021 Clark's Patent dis 2021 Sersws.—Flat Head Iron, dis 7027 Sound Head Iron dis 5027
Disston's Combined Fruning Hoo and Saw, Disston's Pruning Hook. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Prune. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Prune. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Prune. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Prune. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Prune. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Prune. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Prune. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Prune. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Combination. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Combination. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Combination. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Combination. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Combination. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. S. Lee & Co.'s Combination. \$\psi\$ dos \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination. \$\psi_2\cop, \dis 20 \\ E. E. Lee & Co.'s Combination	Plat Head Brass dis 70@7' Toung Head Brass dis 50@5' Toung Head Brass dis 50@5'
E. S. Lee & Co.'s Pruner	apanned. list of Plain Screws. dis 6- oach, Patent Gimlet Point dis 7,84
Wheeler, M. & Co.'s Combination # dos \$12, dis 20 5 Dunlap's Saw and Chisel # des \$6.00. dis 20 5 Pulleys.— Hot House and Tackle dis 5c&10 5	fachine, Flat Head, Iron
Jap'd Screw. dis 6x&10 9 Hrass Screw. dis 70&10 9 Jap'd Side. dis 6x&10 9	Sench, Wood, Beech. \$\psi\$ dom \$3.00, dis to sench Wood. Hickory. dis 20&11.
Jap'd Clothes Line	land Hall, Sargent's
Hay Fork, "F" Common and Pat. Busheddls 20 % Hay Fork, Tarbox Pat. Irondls 20 % Shade Rack	ack (Wilson's) dis 4
Panches. Saddlers or Drive R dos \$2.00; 2.25; 2.50dis 55 % Bemis & Call Co.'s Cast Steel Drive	Shears and Scissors. Imerican (Cast) Iron
Shade Rack dis 45 % Punches Saddlers or Drive. # doz \$2.00; 2.25; 2.50. dis 55 % Bemis & Call Co. 's Cast Steel Drive. dis cock * Bemis & Call Co. 's Spring field Socket dis cock * Spring W doz \$7.00 dis 55 % Spring, Leach's Patent dis 15 % Bemis & Call Co. 's Spring and Check dis 40 % Solid Tinners' # dos \$1.44, dis 40 %	Sarnard's Lamp Trimmers
Bemis & Cail Co.'s Spring and Check	Heinsch's, List, Dec., 1881
Sliding Door, Wrought Brass, W B 3501dis 20 % Sliding Door, Bronsed Wrt. Iron W foot rac, dis 35 % Sliding Door Iron, Painted W foot ac, dis 35 %	Cast Steel Trimmers
Rail. Silding Door, Wrought Brass, \$\psi 350,\dis 20 5 Silding Door, Bronsed Wrt. Iron\psi foot 120, \dis 55 7 Silding Door Iron, Painted\psi foot 40, \dis 16 18 Bara Door, Inch\psi 56 B. D. for N. E. Hangers— Small, Med. Large.	Wiss, J. & Sons' list, Dec. 1881. dis of Wiss, J. & Sons' Tallors' Shears. dis so Sheaves. Ilding Door, M. W. & Co. Hist. dis so&to&z liding Door, M. W. & Co. Hist. dis so&to&z liding Door, R. & E. Hist. dis so&to&z liding Door, Patent Roller. dis following the source of the sourc
Per 100 feet	liding Door, Patent Rollerdis 60&10&2 liding Door, Patent Roller, Hatfield'sdis 60&10&2 Hding Door, Russell's Anti-Frictiondis 60&10&2
RazersJ. R. Torrev Razer Co	Mding Door, Moore's Anti-Friction
Imitation Emerson	Morrola Anti-Friction (Handing) new list dis 25 Ship Tools, -L. & I. J. White dis 26
Saunder's	Sinvels and Spades and Scoops
fron in buik	Ind Colony dis 1s Groom Shavel Co dis 2s Hussey Blans & Co dis 2s
Opper Rivets and Burrs	Payne Pettebone & Son, list Jan. 2, 1882dis 508.5 R. T. Pettebone, Pat. Shovels, new listdis 50
Hivet Note	Rouland's (Lowman's Patent)
	Siavers and Tengs. Iron and Irass Head, R. & E. list. dis foctore; Iron and Brass Head, P. S. & W. dis coccetor Polished Steel. new list. discoccioe; Siates.—"quare Fra es, by case dis Less than a case. dis Santie Shaves dis
etone. dinfs' List. April 1, 1884,dis ic \(\Pi \) danila	Sintes.—"quare Fra es, by casedis co&
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ianiia, Fine Tar'd Lath Yarn	
	Bonney's
Come (Anti-Friction)	No. 1, \$15.00; No. 2, \$12.00 \(\pi \) doz, dis 55&10 Deurlass'\(\pi \) doz \$5.00. dis 15 \[\pi \) poons\(-\Bar{B} \) doz, dis 70&5 \[\pi \) poons\(-\Bar{B} \) doz, dis 70&5
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JEFORM 4 to 10	Holmes & Edwards Silver Co
leason's Shield and Tolletdis 2< \$\footnote{1}{\text{s}} \text{ frons, Doubled Pointeddis 35 \$\footnote{1}{\text{s}} \text{ frons, Square Backdis 35 \$\footnote{1}{\text{s}} \text{ frons, Square Backdis 35 \$\footnote{1}{\text{s}} \text{ frons.}	Cast Steel, Silver Plateddis 40&5
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rries Best Flint, No. 316 Fream 5.50 Jumbia Flint, all Nos. Pream 4.00	Sand Stone. W B 50, dis 33\2\\\ Washita Stone. No. 1, \(\pi\) is 190 in
rties Emery Paper \$\psi\$ ream \$6.50 \text{ it.co}\$ dis 35 \$\psi\$ rties Emery Cloth \$\psi\$ ream 18.00 \text{ g 26.00}\$ dis 35 \$\psi\$	Washita Stone Slips. No. 1, F B 390 n Arkansas Stone No. 1, 4 to 6 in F B \$1,35 dis 10
ew England, same list as R. & A. Flint. dis 30&10 % ige's dis 30.510 %	Turkey Oil Stone (Chase)4 to 8 in., W B, 6oc, dis 10 Turkey Silps (Chase)
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FK's, NO 1, #16.00; At 2, 95.00 per gross	Dixon's Plumbago ** b Sc, ne Boynton's Noon Day # gross No. 1, large, \$4.40 No small 22 No. 2, medium 24.
iker's. dis 10 g mmond's Window Springs. dis 25 g rthup Window Springs. No. 1, \$10,00 F gross. dis 15 g	Tacks, Brads, &c. New List, Sept. 1, 1882. Finned Swedes Tacks
ommon Sense," Japanned, Coppered and ronged	Swedes Tacks, all kindsdis 30 \$ Swedes Tacks, all kindsdis 30 \$ American Cut Tacksdis 30 \$
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aw Frames. ite, Vermon! # doz 81.50, dis 25&10% l, Polished and Varnished. # doz 81.50, dis 10% r Rods	Game. Blake's Patentdis 40% 10 % Mouse, Wood, Choker
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w Rods	Excelsion. dis tokinoks # Traps. Game. Newhouse. Game. Newhouse. Game. Oneida Pattern. dis tokino # Game. Blake's Patent. dis tokino # Mouse, Wood, Choker. # dox # dox fis. Mouse, Hound Wire. # dox # .50, dis 10 8 Mouse, Catch-em-alive. # dox # .50, dis 10 8 Mouse, Catch-em-alive. # dox # .50, dis 10 8 Mouse, Delusion # Mouse, Delusion # Traweis. Lothrops Brick and Plastering dis 25 8 Reed's Brick and Plastering dis 25 8 Reed's Brick and Plastering dis 25 8 Reed's Brick and Plastering dis 26 8
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9	Wiss, J., & Sons' Tailors' Shears. dis so Sheaves. Sheaves. Idding Door, M. W. & Co. Itsk. dis soktoo'x uliding Door, R. & E. list. dis soktoo'x uliding Door, Patent Roller. dis 6oktoo'x uliding Door, Patent Roller, Hatfield's. dis 6oktoo'x uliding Door, Patent Roller, Hatfield's. dis 6oktoo'x uliding Door, Moore's Anti-Friction. dis 6oktoo'x ulding Door, Moore's Anti-Friction. dis 6oktoo'x ulding Shutter, Sargent's list. dis 6oktoo'x ulding Shutter, Reading list. dis 6oktoo'x ulding Shutter, Sargent's list. dis 6o	MMM
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N SE SE SE	liding Shutter, Sargent's list	AMMA
N 18	Stravets and Spades and Scoops	N. W.
A 34 50 41	10 Colony dis 15 Groom Sh.vel Co dis 20 Hussey Binns & Co dis 20 Lehigh Mfg. Co dis 50&10	MAMA
	Payne Petrebone & Son, list Jan. 2, 1882dis 50% S. R. T. Petrebone, Pat. Shovels, new listdis 50% S. R. T. Petrebone, Pat. Scoops, new listdis 20% S. M. T. Petrebone, Pat. Scoops, new listdis 20% S. M.	N N N N
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2 63 63 64	Balley's (Stanley R. & L. Co.), new listdis 30&10 Stearns'	X
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-	Solid Table and Tea. dis 70% Solid Table and Tea. dis 60% of the first annia. dis 60% of the first annia. dis 60% of the first annia.	* * * *
	Wm. Rogers Mfg. Co	MMM.
	Cast Steel, Silver Plated	% t
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	Stocks and Dies	S S
-	Hindostan No. 1, &c Axe, &c Slips, 100	5 6
	Washita Stone Slips	4 4
	### 100	6
	Lake Superior, Slips (Chase). \$\phi\$ 30c, dis 10 grindstones, Family, Lorina's dis 10 strips of the process \$\frac{1}{2}\$ strips of the pr	
	Gold Medal	
	Rising Sun	
	Tacks, Brads, &c. New List, Sept. 1, 1882. Finned Swedes Tacks	
	Tinned American Tacks. Glis 30 %	
	Swedes Hungarian Nails	
	Trunk and Clout Nalls	
	Brush Tacks	1
	Double-pointed Tacks	1
	Ives' Tap Borers	
	Spring die 40 % Chesterman s regular list die 14 % 20 % Thermometers.	
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	The rane meters The case dis 80 %	-
	Clipper (Sargent & Co.) # dos sis.co. dis 20 & 10 & Acmo # dos sis.co. dis 20 & 10 & Acmo # dos sis.co. dis 20 & 10 & Acmo # dos sis.co. dis 20 & 10 & Acmo # dos sis.co. dis 20 & Tinners' Tools and Machines. # b 9c, dis 5 Machines (P. S. & W.)	
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	Wolfer Imp. Lifter, list, Oct., 1883. dls 3x85 5 Excelsior. dls 50&10&2 5 Traps. Game. Newhouse	E
	Traps. Game. Newhouse. Game. Onelda Pattern. Game. Blake's Patent. Mouse, Wood. Choker. Mouse, Woud. Choker. Mouse, Game. Blake's Patent. Mouse, Hound Wire. Mouse, Cage, Wire. Mouse Cage, Wire. Mouse, Catch-em-alive. Mouse, Catch-em-alive. Possass. Mouse, Catch-em-alive. Possass. Mouse, Catch-em-alive. Mouse, Delusion. Per gross. \$10.00. dis. 20 \$	-
	Mouse, Round Wire	F
-	Mouse, "Bonansa" per gross \$10.00 net Mouse, Delusion per gross, \$18.00 dis 20 \$ Rat. "Decov" \$ dox \$10.00 dis 10 \$ Trowels.	
-	Rat. 'Decov '	
-	Clement & Maynard's	6
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DOM'	aw Filers, Wentworth	
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B	Washers.—See Nuts and Washers. Well Wheels	10

Stone, Tinned, Tinned list	Bemis & Call's Brigg's Pattern dis 25 Bemis & Call's Cylinder or Gas Pipe dis 10 Aiken Pocket (Bright) & & & & & & & & & & & & & & & & & &
THE L'HOMMEDIE	

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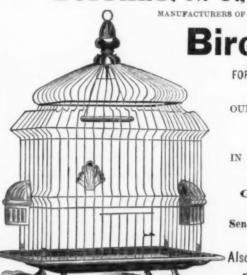
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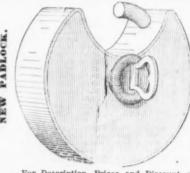
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POST'S

Waterproof Belt Oil and Leather Preservative,

FOR WET AND DRY LEATHER BELTING.



The Standard Belt Oil of the World.

Leather dressed with this oil will not crack or rot, as heat, cold, water or gas has no effect on it. It will spread one-third further and last much longer than any or for the same purpose. It never turns rancid; will keep in any climate. Belts may be run in water at one end and a hot room at the other, and still be soft, dry and pliable. Warranted not to start glue-laps or gum on belts or pulley, and to keep the surface perfectly smooth.

Beware of Imitations Sold at a Cheaper Price, the Color of which is well Calculated to Deceive.

In their Treatise on Machine Belting, J. B. HOYT & CO. speak of Post's

OILING OF BELTS.

"Care should be taken that belts are kept soft and pilable. For this purpose we decidedly advise the use of "POST'S WATERPROOF BELT OIL AND LEATHER PRESERVATIVE." When applied as DIRECTED, it makes t Belt smooth, pliable and adhesive, and causes it to hug the pulley closely, so that no power is lost from lack of pulley contact. It possesses excellent preservative qualities and also renders the leather more mpervious to dampness than any article or preparation we know of.

Moisture should not be allowed to pene trate the laps or joints, as it will dissolve the cement and cause the laps to com

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> CANADA: Robin & Sadler, Montreal. NEW BRUNSWICK : R. Chestnut & Sons, Frederickton. SCOTLAND : Robert Balderston, Glasgow ENGLAND . O. & W. Ormerod, Rochdale.

If you cannot get POST'S OIL from your Belt Maker, send direct to us and we will see that you do get it.

PRICE, PER GALLON, \$1.50

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E. L. POST & CO.,

No. 10 Peck Slip, New York,

SOLE MANUFACTURERS.

WHOLESALE METAL PRICES, April 30, 1884.

	- 1111112 1 111020,
METALS.	NICKEL. Metallic, in grains. 9 % \$1 00 Metallic Anodes. 9 % \$1.20 @ \$
IRON.—Dury: Bars, 8-10¢ to 11-10¢ \$\vert D\$; vided that no Bar Iron shall pay a less rate of than 35%. Sheet, 11-0¢ to 15-10¢ \$\vert D\$. Band, B and Scroll, 1¢ to 14-10¢ \$\vert D\$. Railroad Bars we ing more than 25 D \$\vert y\$ ard, 7-10¢ of 1¢ \$\vert D\$. American	21.00 Sulphate and Ammonia "19.50 Nickel, Chloride. "18.50 Acid, Muriatic, 20°
Langloan \$\psi\$ ton \$\prec{\partial}{\partial} 2\$ Suumerlee \$\psi\$ ton \$\partial 2\$ Dalmellington \$\psi\$ ton \$\partial 1\$ Eglinton \$\partial 2\$ ton \$\partial 3\$ Clyde \$\partial 2\$ ton \$\partial 3\$	2.00 ANTI HONY. 0.50 Hallett's
Clyde	ZINC-Duty: Pig or Block, \$1.50 \$\text{ for } 100
Wrought, \$\varphi\$ ton, from yard 22.00 @ 25 Bar Iron from Store. Common Iron:	2.50 Zinc.—Open
\(\frac{1}{4} \) to 1 in. round and square\\ \} \(\partial \) to 6 in. x\(\partial \) to 1 in\\ \} \(\partial \) to 6 in. x\(\partial \) to 1 in\\ \} \\ \} \\ \partial \) to 2 in. round and square\\ \} \\ \partial \) to 6 in. x\(\partial \) to 1 in\\ \} \\ \partial \) to 6 in. x\(\partial \) to 1 in\\ \} \\ \partial \) to 6 in. x\(\partial \) to 1 in\\ \} \\ \partial \) to 6 in. x\(\partial \) to 1 in\\ \} \\ \Partial \) \\ \Partial \(\partial \) 1 to 6 in. x\(\partial \) to 1 in\\ \} \\ \Partial \) \\ \Partial \(\partial \) 1 to 6 in. x\(\partial \) to 1 in\\ \} \\ \Partial \) \\ \Partial \(\partial \) 2.30 \(\partial \) 2.80 \(\pa	10¢ Fancy Scotch and Extra Patterns
Common R. G.	6¢ 10 11 11½ 1½½ 14 15 Bright Market Wire dis 60 6 82 Charcoal dis 45 6 47
Nos. 10 to 16	Annealed Market Wire
Galvanized, 21 to 24.	Nos 16 17 18 19 20 21 22 23 24 25
STEEL.—Dury: Ingots, Bars, Sheets, &c., va ued at 4¢ ½ h or less, 45 ad. val.; valued abov 4¢ and not above 7¢ ½ h, 2¢ ¾ h; valued abov 7¢ and not above 10¢ ½ h, 25¢ ½ h; valued abov 10¢ ½ h, 35¢ ½ h. Etras.—Steel Bars, Rod &c., cold hammered or polished, in any way addition to ordinary hot rolling, 15¢ ½ h in and tion to above; Steel Circular Saw Plates, 1¢ ½ 1 in addition to the above	Galvanized Stone Wire
in addition to the above.	Brass and Copper Wire. Old English Gauge the Standard.—Dis 20. Gildin Brons High Low and
American Cast Steel. For American Steel, see Pittsburgh quotations. English Steel.	All Nos. to No. 16, inclusive \$0.22 \$0.26 \$0.2
Best Cast. Extra Cast. Extra Cast. Bilster. Round Machinery, Cast. Best Double Shear. Best Double Sh	19 and 20
3d quality. \$\beta\$ D 8 \$\text{Sheet Cast Steel, 1st quality}\$\text{\$\beta\$ D 18\text{\$\delta\$} \text{\$\delta\$ D 18\text{\$\delta\$} \text{\$\delta\$ D 18\text{\$\delta\$} \text{\$\delta\$} \text{\$\delta\$ D 18\text{\$\delta\$} \text{\$\delta\$} \text{\$\delta\$} \text{\$\delta\$ D 18\text{\$\delta\$} \text{\$\delta\$} \text{\$\delta\$} \text{\$\delta\$} D 18\text{\$\delta\$} \text{\$\delta\$} \text{\$\delta\$} D 18\text{\$\delta\$} \text{\$\delta\$} \text{\$\delta\$} D 18\text{\$\delta\$} D 18\text{\$\delta\$} \text{\$\delta\$} D 18\text{\$\delta\$} D 18	\$\begin{array}{cccccccccccccccccccccccccccccccccccc
English	· 1 14 98 00 4 M
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I C 19x19 { I C 20x28, 112 '' '12,00 @ 18.50 I X 10x14 { 225 '' '7.00 @ 8.00 I X 14x29, 112 '' '7.00 @ 8.00 D C 1234x17, 100 '' '5.50 @ 5.72 D X 1234x17, 100 '' '6.75 @ 7.60 For each additional X add '' '6 1.50 Coke Tin Plates. Best. Ordinary.	Wire. Fancy Wire, not less than 10 cents advance on Round Bround Wire. Spooling on one-pound Spools, 11 cents per pound extra. Spooling on ten-pound Spools or more. 2 cents per pound extra.
I C 10x14 \$5.50 \$5.00 @ \$5.25 I C 14x39	10
Terme Plates, Prime Char. 2d. quality Coke. I C 14x20 M. F. @ \$7.371/2	
Tin Boiler Plates. IXX 14x20, 2 sheets for No. 7, 112 sheets. @ \$18.50 IXX 14x28, 2 " No. 8, " 0 14.50 IXX 14x31, 2 " No. 9, " 0 16.00	American Screw Co.'s
COPPER.—DUTY: Pig, Bar and Ingot, 4¢; Old Copper, 3¢ \$ 5. Manufactured (including all articles of which Copper is a component of chief value), 35 % ad valorem.	List, July 2, 1883. Single. Sizes. 1st. 2d. 3d. 4th.
value), 35 % ad valorem. Ingot, Lake	6 x 8 to 10 x 15. \$18.50 \$11.50 \$10.75 \$10.25 11 x 14 to 16 x 24. 14.50 13.50 12.50 11.50 18 x 22 to 30 x 30. 18.50 17.00 15.50 14.00 15 x 36 to 24 x 30. 30.50 18.50 17.00 15.50 14.00 26 x 23 to 24 x 36. 29.00 20.00 17.50 17.50 96 x 36 to 30 x 30 18.50 18.50 18.50 30.50 <td< td=""></td<>
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Bolt Copper	Sizes. 1st. 3d. 3d. 4th. 6 x 8 to 10 x 15. \$17.50 \$15.00 \$14.00 \$19.00 11 x 14 to 16 x 94. 29.00 18.00 16.50 \$19.00 18 x 22 to 20 x 30. 24.00 22.00 20.00 20.00 15 x 30 to 24 x 350. 20.50 24.00 22.00 23.00 25 x 25 to 24 x 35. 29.00 26.00 23.00 23.00 25 x 46 to 20 x 50. 38.00 31.00 27.00 27.00 90 x 26 to 30 x 54. 35.00 32.00 36.00 36.00 30 x 26 to 30 x 54. 35.00 34.00 36.00 36.00 31 x 80 to 34 x 56. 37.00 34.00 36.00 36.00 36 x 80 to 40 x 60. 48.00 40.00 37.00 32.00
X38, 14, 16 02.	26 x 46 to 30 x 50.
Bottoms, cut to special sizes. " @ 24 ¢ Tinning. 14x48, by the case \mathbb{P} sheet, 8¢	Sizes above—\$15 per box extra for every 5 inches. An additional 10 per cent, will be charged for all Glass more than 40 inches wide. All sizes above 52
For tinning both sides, double the above amount. O'Neill's Patent Planished CopperNet.	inches in length, and not making more than 81 united inches, will be charged in the united 84 unches bracket. Discount 75 to 75 & 10.
12 and 16 oz. and heavier 35¢ By the case. § 15 34¢ 12 oz. and lighter	PAPER STOCK, &c. (Dealers' Selling Prices.) Cents # 5.
(And all sizes not over 20 in. wide.) 14 and 16 oz. and heavier	White Shirt Cuttings, No. 1
Sheathing Metal. Yellow Sheathing Metal. & D BRASS AND GERMAN SILVER. Brown & Sharpe's Gauge the Standard for Metal; Old English Gauge the Standard for Wire. Brass Manufacturers' Price List, January 17,	MIII Assorted Whites
1984	Dolors, 9: cwt. 70 69 Manila Rope. 346 346 34 Junny Bagging No. 15 6 24 Junny Bagging No. 15 6 15 6 Kentucky Bagging. 4 6 4 6 Burisp Bagging No. 1 24 6 25
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	Mixed Shavings, part White.	-
ô	Ledger and Writing 3 @ Solid Stock 24 @	84.748
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04	Black Lamp-Coach Painters B 22 @	2.
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	" Ultramarine	30
10	Brown Spanish 10 @	k4 [2
50	Green Chrome	24
(¢	" Parisgood, so; best,	19
g.	Iron Paint, Bright red * 10 2	4
ь.	Brown Purple Ground in oil, Bright Red. Ground in oil, Bright Red. Brown Brown France	9 9
iø.	Ground in oil, Bright Red	9
06	Brown	9
27	Mineral Paints	40
38	Red Lead, American.	7
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ø	Rose Pink	3
	Sienna, American Raw, powdered	31
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	" Raw, powdered	ķ
K.	Vermillion, Chinese	N N
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	White Parls, English prime, in bbls 2 @ 216	C
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-	Zinc White, American No. 1 dry	e
1	Prench (Paris dry) 614 @ 8	C
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1	Bleached Whale, # gal	2
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1	Prime Lard730	
1	West Virginia	
ı	Minera Oil	
ı	Fish Oil, Pressed	
1	Tallow	
	Machinery	
1	Ground in oil, Bright Med.	Ì
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	Benzine	
1	Block	١
1	Frostings 400 Glue, White 44 3 35 " Sheet 200 Glue White 7 100	ı
1	Glasters' Points, Zino	١
1	Gum, Copal36c	ı
	8 Bhellac, English	I
1	Litharge	I
2	Glasters' Points, Zinc	ı
3	Pumice Stone, selected Lumps4 6 bc	I
F	Pine Tar, bbls	ı
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F	Rosin—Common and Good—Strained	I
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	1 & K	ı
8	Spirits Turpentine per bbi	١
1	Pine Tar, bbls	ı
-	Waste No. 2 White Machine90	I



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Stubs' Files, Tools and Steel, Grobet Swiss Files, Rollason's Patent Steel Music Wire.

FINE TOOLS A SPECIALTY.

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Celebrated Tailors' Shears, Trimmers, Scissors, &c., Japanned and Nickel-Plated. Every pair warranted.

GEO. WOSTENHOLM & SON'S, WADE & BUTCHER'S Pocket Cutlery and Razors. JNO, WILSON'S Butcher Knives, Steels and Shoe Knives.

NEW ENGLAND CUTLERY CO.'S Table Cutlery.

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AUTOMATIC

Double - Action Revolvers.

Turning the Barrel on the Center Stem and drawing it forward ejects all the Shells 38 and 44 Calibre.

Both Pocket and Belt



Tramp Terrors, Rangers, Dictators, Blue Jackets X L REVOLVERS.

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FINE MACHINIST TOOLS and FIRE ARMS. Our

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Complete outfits for Actual Workshop Business.
Lathes for Wood or Metal. Circular Saws, Scroil
Saws. Formers, Mortisers, Tenoners, &c., &c.
Machines on trial if desired, Descriptive Catalogue and Price List Free,

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Elizabethport Steam Cordage Co., MANUFACTURERS OF MANILA, SISAL AND TARRED

CORDAGE OF ALL KINDS.

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INDUSTRIAL ITEMS.

NEW HAMPSHIRE

The firm of S. C. Forsaith & Co., machinis and general machinery dealers, Man-chester, was incorporated May I, under the laws of the State of New Hampshire, as the S. C. Forsaith Machine Company, with a capital stock, all paid in, of \$275,000, for the capital stock, all paid in, of \$275,000, for the purpose of manufacturing and dealing in machinery and supplies. The officers will consist of D. B. Varney, president, S. C. Forsaith, treasurer, and W. E. Drew, agent, the management being the same as in the past. The firm to which the new company past. The firm to which the new company succeed was established in 1860, the object of incorporation being to still further increase the business, placing it upon a still broader basis than in the past, while the works and office will remain, as in the past, at Manchester.

NEW YORK.

The Stiles & Parker Press Company, of Middletown, Conn., manufacturers of droppresses, have rented a large building at 59 Duane street, corner of Elm street, New York, which, as a branch office, will embrace warehouse and showroom. The company will also use part of the building as a factory. At present they are putting in all the tory. At present they are putting in all the necessary machinery for a shop from which they will in future supply the local trade with presses. This New York office will not in any way interfere with their main works at Middletown, which will continue in operation as heretofore.

Bernard T. Steber, of Utica, has invented an improved match-making machine, and is erecting iron buildings for the manufacture of matches. He expects to begin work in about two weeks. It will be remembered that the works of the Utica Match Company were burned by an incendiary last Christ-mas. A majority of the directors refused to rebuild the works, and Mr. Steber there-upon determined to enter upon the manu-facture of matches himself. He announces that he will not only oppose the Diamond Match Company, but will under no consideration sell out to, combine or negotiate with that corporation

NEW JERSEY.

The discovery of zinc on the farm of Philip Raub, in Oxford, Warren County, by Hartpence & Swayze, is attracting the attention of mine hunters. The company have erected an engine, pumps and hoisting works, and have already mined quite a large amount from the outcrop, and have also a large amount in sight in their opening. It is a blende, quite rich, easily mined, and lies in the crystalline lime formation which extends from the Hudson to the Delaware Rivers, through the County of Orange (New York) and Sussex and Warren counties,

The Belvidere Iron Company, a mining The Belvidere Iron Company, a mining corporation, have recently sunk another shaft on their Little property, and are now taking out from their several openings, and ahipping via the Lehigh and Hudson River Railway, about 75 tons daily to various furnaces in Pennsylvania.

Of the 20 blast furnaces in New Jersey only four are in blast. These four are producing about 1500 tons per week, or 75,000 tons annually. Several of those out of blast are now ready to be blown in as soon as the demand and market price of pig iron will warrant it.

PENNSYLVANIA.

Col. Wm. Dorris, who was made trustee by the creditors of Blain Bros., proprietors of the Huntingdon Car and Car Wheel Works, has announced that the works will resume operations shortly. Arrangements have at last been perfected with their creditors whereby Blain Brothers will be enabled to conduct the business as before, and a liberal extension has been granted them for that purpose. A large list of orders is on hand waiting to be filled, consisting entirely of new work.

The Wheeler Iron Company, of Sharon, have shut down their rolling mill at West Middlesex for want of orders.

On the 30th ult., at Erie, James B. and Frank Pierce, of Sharpsville, moved for a preliminary injunction to restrain William L Scott and other stockholders from rebuilding at Erie the Mount Hickory Rolling Mills, destroyed by fire last December. The Pierces own a sixth interest in the concern, and wanted the plant m The motion was overruled. It is understood that the Mount Hickory Iron Company's furnaces, located at Sharpsville, are to be

Richard Hecksher & Co., of Philadelphia Richard Hecksher & Co., of Philadelphia, are reported to be negotiating with the Philadelphia and Reading Coal and Iron Company for the lease of Swedes Furnace, on the main line of the Reading Road.

It is reported in Titusville that Charles Burgess, of Cleveland, with J. H. Luedden and James D. McKelvy, of Pittsburgh, are negotiating for the purchase of the Eames

At the Philadelphia Bridge Works of Messrs. Cofrode & Saylor, at Pottstown, the output of manufactured iron for the month of April, just closed, was 2,549,362 pounds. The capacity of the works which this indicates is equal to over 15,000 tons per an-

The statement made last week concerning the excellent record of the Gautier Stee Department of the Cambria Iron Company needs correction in two particulars. very large output of wire made in one day was "fence" wire, not "finished" wire, and the quantity galvanized on that day was over 50 tons, instead of 30 tons, as published.

The puddle mill of the Bethlehem Iron Company has shut down. It is not known when it will start. About 150 men are thrown out of employment.

The molders employed by the Reading Hardware Company, who have been striking against a reduction for some five months, have effected a compromise with the comand will begin work at once. stated that throughout the whole time of

the strike the Molders' Union paid employees who were married men \$7 per week and single men \$3 per week. There were 125 molders concerned in the strike.

new labor organization called the "Workingmen's Protective Association of the Connellsville Coke Region" has been organized, with headquarters at Scottdale. It comprises the majority of the laborers of the coke region, and its object is to protect its members against imported contract laborers, and to sustain wages against any reduction that may be offered by the coke operators. In its platform the association advocates the establishment of co-operative nstitutions, the prohibition of the employnent of children, and the reduction of the ours of labor to eight hours per day.

An ax factory is to be started at Brook-ville, Jefferson County.

It is reported that the Merion Iron Company will blow in their Merion and Elizabeth furnaces, at West Conshonocken, early this

Clara Furnace, of Raney & Berger, at Newcastle, is again blowing, after being idle for 10 days on account of the strike of the for 10 days on furnacemen at that place. Harry D. Ruth has started up his agri-cultural works at North Wales, Montgomery

County. The foundry made its first casting a few days ago. The stove manufacturing firm known as Rogers & Co., of Dowingtown, has been reorganized. A stock company has been formed, with a capital of \$20,000, to be

PITTSBURGH AND VICINITY

known as the Rogers Stove Company.

The fire fiend tried his hand at a blast fur-The fire field fried his hand at a blast furnace last week, paying his compliments to Clinton Furnace, of Graff, Bennett & Co., in the shape of a slight blaze. A small fire also occurred at the shovel works of Hussey, Binns & Co. But in neither case was the los considerable.

All the shafting, pulleys and fittings for the Aurora (III.) Cotton Mills, as also those of the Payne Lumber Company's large sash, door and blind factory, at Oshkosh, Wis., have been furnished by Jones & Laughlins,

The stove men are complaining of dull A representative of the firm of A. trade. Bradley & Co. said recently that trade had never been so dull with them as it is now. They are only running part time, making just what is needed to fill a few orders that are being received. When asked to what they attributed the condition of trade, he said: "There are various reasons for it, yet none of them are sufficient to influence it largely; but I suppose all combined go to make up the cause. The failure of the cot-ton crop in Texas and the short crops ton crop in Texas and the short crops throughout the Western States last year, combined with very bad country roads this spring, have all had their effect. We are controlled here by the West. I don't know that we will shut down entirely, unless the Western men order it, in which case we will."

The strikers at the Wayne Iron Works-Brown & Co.—returned to work on April 28.
The firm agreed to withdraw the proposed to per cent, reduction for the present.

The wire-rod mill of the Oliver & Roberts Wire Company, Limited, on Ninth street, South Side, will be completed and ready for operations in about 60 days. The mill will atain four roll trains, two and three high, and the other necessary appliances and ma-chinery will be of proportionate capacity. Hitherto the firm have imported wire rods from Germany.

The charter of incorporation of the Axle Oil Company was filed in the Recorder's office last week. The capital stock of the new company is \$500,000, and the business is be conducted in this city. The incorporators are Frank Semple, H. C. Van Tine, Charles Speer, Charles J. Clarke, W. R. Thompson and John B. Jackson.

The new round-house and workshops of the Baltimore and Ohio, at Glenwood, are about completed.

Two very strong gas wells were completed in the vicinity of Pittsburgh last week, one near Washington and one at Murraysville. DELAWARE.

William Astor's new steel yacht Nour-mahal was launched by the Harlan and Hollingsworth Company of Wilmington, at 6.46 a. m. on the 3d inst. The Nourmahal is said to be the largest pleasure vessel ever launched in America, and to be the largest yacht afloat. Her dimensions are: Length, 232 feet 8 inches; extreme breadth, 30 feet; extreme depth, 20 feet.

OHIO. Lambert Brothers' Machine Shops, at Ironton, are now engaged on 32 nail machines for the Nerton Iron Works. Half of for the Nerton Iron Works. Half of the castings are made and one-fourth of them are fitted up. The ironwork for the 175-foot stack is about ready to be put up. The same firm are also changing four of the Alice Furnace boilers from cylinder to flue boilers. They have the new bell and hopper for Belfont Furnace nearly done. It weighs 14 tons. It is so arranged that, when the bell is dropped, valves are moved so as to prevent the escape of gas.

so as to prevent the escape of gas. Belfont Furnace, at Ironton, will be ready for blast about June 1.

Several blows have been made at the new steel plant of the Bellaire Nail Works, for the purpose of testing the machinery. The result was eminently satisfactory.

Cleveland parties bid in the Enterprise Machine Works, at Geneva, at the recent sale, for \$18,000. The works were originally appraised at \$60,000, and the second time at \$28,000. The works will be set in operation at once.

The Brilliant Glass Works, at Steubenville, which are in the hands of a receiver, are again offered for sale on June 2, 1884. The works are appraised at \$12,000, and are situated in the gas belt.

An output of 3606 kegs of nails in five 14th ult. for the purpose of relining the furnace and making some alterations which machines, is the best record of the Kelly

Means, Kyle & Co.'s new coke furnace at Hanging Rock is to be called Hamilton Fur-

Mount Vernon Furnace is now putting in a new Davis hot blast.

Hecla (charcoal) Furnace has been in blast on her present hearth and the hearth which it replaced over 1700 days, and the present hearth is still good. The furnace is at present stopped, but will resume in a short time. ILLINOIS.

The Western States Construction Company, of Chicago, have been incorporated, with a capital stock of \$10,000; incorporators, Henry V. Pierpont, Willis I. Hitt and John M. Jackson. The object of the corporation is to take contracts for the construction of railroads and bridges.

The S. H. & E. Y. Moore Manufacturing Company have purchased ground in close proximity to the depot at Deering, and will at once commence the erection of a factory for the manufactory of parlor and barn door hangers, locks and light hardware special-ties. The machine shop, blacksmith shop and foundry will be fully equipped with necessary tools and machinery. The works are expected to be in running order by June 1

Some 24 wood-working mackines for different parties are being made at the Preble Machine Works, Chicago. These works have been lately equipped with new machinery and are running 15 hours per day.

The Lambert & Bishop Wire Fence Com-pany, of Joliet, will be in their new works, now nearing completion, by July 1.

The Chicago Die and Machine Works are at work on a set of nut-tapping, bolt-head-ing and cutting-off machines and a boltthe ating furnace for a firm in this State. These works have just completed and shipped a very ingenious pin-making machine, and are doing a great deal in experimental prochimental. imental machinery.

INDIANA.

The report is premature that the Indian-apolis Rolling Mill Company have decided to alter their plant from rail-making to the manufacture of bar and light iron. They have not yet concluded to do so. At present they are only running their machine shops and foundry, making Greenleaf turn tables and some other work.

The project of establishing glass works at Michigan City has been given up.

Madison is to have a \$100,000 foundry, oint stock company having been organized for that purpose.

IOWA. A barb-wire factory is to be established at Decorah.

The Crystal Plate Glass Company, of Crys-

tal City, are putting in six steel boilers of 120 horse-power each, manufactured by Rohan Brothers, of St. Louis. Their boilers will then number 17, developing 2500 horse-power. Their engines are all of the Corliss type, and embody the most recent and im-proved designs. The company are also building one 24-pot gas melting furnace, which, with their three 16-pot furnaces now working, will bring their product up to 72 pots per day. They are running their grinding and polishing departments day and night, and their annual output of finished glass about 1,500,000 feet.

MICHIGAN.

Spring Lake Furnace, at Fruitport, at present out of blast, repairing, will probably blow in about June 1. The furnace runs on mer iron

A plant of hoisting machinery for the Lake Angeline Mine, at Ishpeming, is in course of construction at the Iron Bay Foundry, Marquette. This plant is to replace that recently destroyed in the fire which burned down the engine-house be-longing to the mine and crippled its outfit of hoisting machinery. It will consist of six 6-feet hoisting drums, Merritt's external friction, and will be ample to do all the hoisting from the several shafts of the mine. Two 18 x 24 condensing engines, built at the same shops, will furnish motive power for the hoisting plant. The engines will be of the strongest make, and will be supplied with the automatic cut-off. Steam for the hoisting engines will be supplied by a battery of two boilers, 60 inches in diameter by 16 feet in length, and the new engine-house will be built of sufficient size to take in two similar boilers hereafter, when the development of the mine renders that addition to the battery necessary.—Mining Journal.

KENTUCKY.

The Norton Iron Works, of Ashland, do not expect to blow their blast furnace in for several months yet-probably not until their mill is entirely rebuilt.

GEORGIA.

The Phoenix Iron Works, of Savannah, and the firm of Wm. Kehoe & Co., of the same city have been consolidated under the title of the Kehoe Iron Works. The new company now have one of the best-equipped ndries and machine shops in the Their sugar mills and pans meet with great favor, the demand for them rendering it necessary for the company to employ from 40 to 50 hands steadily the year round.

VIRGINIA.

Low Moor Furnace now runs with remark able steadiness and regularity, its weekly product for the past 14 weeks averaging 800 tons a week. Col. W. H. Goodwin is the managing director of the Low Moor Iron Company.

The new Wilton Furnace, on Richmond and Alleghany Railway—the Princess Fur-nace, of Kentucky, that has recently mi-grated to Virginia—will soon be ready to go

Nearly all the Virginia charcoal furnaces are now idle.

Victoria Furnace went out of blast on the

Nail and Iron Works, at Ironton. Some of the nails were 2d fine, and none larger than Was damaged; this could have been repaired springs into the stud a, thus securing the was damaged; this could have been repaired without going out but for the contemplated changes. The crucible of this furnace has been a cause of continuous trouble from the time it went into blast.

> The blast furnace of the Lynchburg Iron Works, which has been in constant opera-tion for more than three years, was blown out April 19. Repairs are being pushed, and the furnace is expected to be in blast June 1.

WEST VIRGINIA.

Top Mill Furnace of the Wheeling Iron and Nail Company went out of blast on April

HARDWARE NOVELTIES.

The Stearns Barn-Door Hanger.

Another addition to the large assortment of barn-door hangers now before the public has been made by Messrs. E. C. Stearns & Co, of Syracuse, N. Y. The general appearance of this article may be gained by inspection of our engraving. The manurfacturers describe it as the only hanger made having a hardened bearing and a wheel turned and finished perfectly. The small roller, shown in the illustration at the back, prevents any side friction. Our read-



Barn-Door Hanger, Made by E. C. Stearns & Co , Syracuse, N. Y.

ers generally will appreciate the neatness of the design and the care with which the parts have been proportioned so as to obtain the greatest strength at points where it is needed.

A New Padlock.

The illustrations which we give herewith represent a padlock quite new in design and appearance, which is about to be put on the market by P. Lowentraut, of Newark, N. J. Fig. I shows it ready for use, with the key

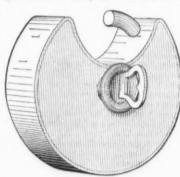


Fig. 1.—The Padlock Ready for Use.

inserted and the bolt partly projected. The ley Railroad.-At Greensburg. inserted or withdrawn when the lock is locked; consequently, it is impossible to leave the lock closed unless also locked, and

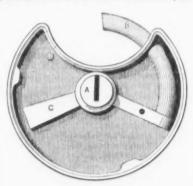


Fig. 2 .- View of Interior.

when the lock is opened the key must always be in it. The construction of the working parts of this padlock is illustrated in Fig. 2. which represents its interior; a is a stud with a slit in it, in which the key is inserted. and on this stud the appliance for locking and carrying the bolt turns. The locking part of the padlock consists of three bolts of unequal length, contained in separate chambers in c, which are carried to their places in a, which is immovable, by spiral springs, microscopical investigations, for which this there being three corresponding bolts of country now affords no facilities adequate different lengths in the stud. When the key with the importance of the work.

lock. The key is made to conform to the different lengths of the bolts in a, so that, when inserted, it throws them outward until they are flush with its outside surface, thus allowing the swivel to which c is attached to revolve freely round the stud a, and so move the bolt, a pin moved by the knob entering the hole shown on the other arm, attached to the swivel. This padlock is made of cast brass, from 1 to 4 inches in diameter. The knob, as indicated in Fig. 1, is chased, and the key is made of steel.

Flower and Fruit Gatherer.

Fig. 3 represents, somewhat indistinctly, an article which is being put on the market by the same manufacturers. It is a comby the same manufacturers. It is a com-bined Flower and Fruit Gatherer, and may with equal advantage be used as a Pruning Shears and Nippers, the general form and construction of which is indicated in the illustration. This Shears is made of mallethe cut, have a cutting blade made of a steel plate which is fastened by a screw to the malleable iron jaw. The peculiar feature of this article, however, is that the jaw under the cutting blade is deepened, so as to form a nippers, which grasps the vine or twig that is to be cut, and, after the cutting, holds it fast, thus obviating the necessity of hand-ling it, and the trouble of picking it up. For neat work and in trimming bushes fortified with thorns this contrivance possesses an



Fig. 3.—Pruning Shears and Nippers

obvious advantage. The manufacturer is at present making only one size—6 inches in length—which is finished either in Japan or nickel-plated.

The Clipper Condensing Coffee or Tea Pot.

The illustration which we give herewith The illustration which we give herewith represents an article which the Clipper Manufacturing Company, 543 West Sixth street, Cincinnati, Ohio, are putting on the market. It will be perceived that in many respects it does not differ from other similar articles which are known to the trade, but it has its special features which are covered by a vector which the by a patent which the manufacturers have recently obtained. It has, as will be per-ceived, a water-cup in which cold water



Clipper Coffee-Pot.

is placed to serve as a condenser, and under-neath this is a lawn sack into which the ground coffee is placed. The cover and the cap on the spout, with the condensing feature above referred to, are claimed to make the pot steam-tight, thus retaining the aroma and strength of the coffee. But the special feature to which the manufacturers c tention is the discharge of the cold water from the cup into the body of the pot to clarify the coffee, there being a small opening in the cold-water cup which, when the pot is slightly tipped, allows the water to run down into the made coffee, thus serving the same purpose as pouring cold water into the coffee-pot, as is frequently done

A Receiver for the Allegheny Valknob shown on the face is used in moving the bolt and can only be turned when the key is in the lock, and the construction of this article is such that the key can only be the and Eric Railroad companies, applied for the morthern Central and the Philadelphia and Eric Railroad companies, applied for and Erie Railroad companies, applied for the appointment of a receiver for the Alle-gheny Valley Railroad Company. In the bill presented, plaintiffs show that the Allegheny Valley is a debtor to the amount of \$27,600ooo; that the Pennsylvania Railroad is its creditor for \$13,600,000, and that the Allegheny Valley has failed to meet its indebtedness. The defendants, as trustees of the Allegheny Valley, are Townsend Whelen & Co., James Murray, John P. Lyon, William J. Howard, the Safe Deposit Company of Pittsburgh and John P. Green. The court appointed John Scott and W. H. Barnes, appointed John Scote and W. H. Barnes, receivers, and they gave bonds in the sum of \$200,000. The receivers are to take immediate control of the road. The court issued an injunction against the Allegheny Valley and all persons interested, restraining them from pushing their claims before a final settlement is made. The receivers have employed Messrs. Moorhead and Head, and it is understood that they, after having ascertained the financial standing of the road in detail, will make a sale of it, and that the Pennsylvania Railroad Company will be the purchaser.

> Mr. Andrew Carnegie has made an abso lute gift of \$50,000 to Bellevue Hospital Medi-al College of New York. This sum is to be expended in the erection of a building and an apparatus to be devoted to labora tories for practical work and teaching in medicine. It is the design of Mr. Carnegie to establish a laboratory for the conduct of

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WYOMING,

TRADE PUBLICATIONS.

Standard Gears.

The Brown & Sharpe Manufacturing Company, Providence, R. I., have issued an attractive and neatly-arranged catalogue relative to the subject of standard gears, the lists of sizes prepared by them embracing two classes—"combination gears," so called from being especially arranged to admit of a great variety of combinations for transmitting power, and "change gears," in which are included those used for screw cutting. The catalogue gives dimensions, styles, prices, and also distances of centers between gears, with the ratios of speed or power, illustrations of the different styles, and also of the epicycloidal and involute cutters used in cutting the teeth. By making these gears in quantities with automatic ing these gears in quantities with automatic machinery, the Brown & Sharpe Company are enabled to furnish them at lower prices than they can be made for in small lots in the usual way, and to give users so large a variety to select from as to meet the usual requirements of machine builders. They have now on hand all sizes of spur gears from 4 to so with as per dimensions and from 4 to 20 pitch, as per dimensions and prices given in their catalogue, the gears being accurately made from iron patterns and uniform in style. It is understood that to the lists just issued will be added from time to time other lists of spur, bend and miter gears, with both cut and cast teeth, worms, hand and worm wheels, &c.

Blast-Furnace Appliances.

The Weimer Machine Works Company, of Lebanon, Pa., have just issued an illus-trated catalogue which contains cuts and descriptions of Weimer's blowing engines and his patent water-cooled and other blast-furnace appliances, besides mining ma-chinery, hot-blast stoves, injectors, &c. The first blowing engine built by this company was designed 30 years ago, and was of the horizontal, double-cylinder, grand type, with large air-valves. In 1876, as the result of extensive investigation, they designed and built their first high-speed engine, operating it at the International Exhibition in Phila-delphia, shortly after which it was put to naces, for coke furnaces, air compressors, for charcoal furnaces and Weimer power blowers, the engines for coke furnaces inblowers, the engines for coke furnaces including Bessemer blowing engines, each of these divisions including a number of engines of different power and capacity, comprising all the sizes in ordinary use. Besides the blowing engines the Weimer Machine Works Company build their patent water-cooled blast-furnace, also hot-blast stoves, ore roasters, blast-furnace hoists, charging apparatus and many miscellaneous appliances. The water-cooled apparatus, which is the practical result of a number of elaborate experiments, have many advantages to recommend them, more especially, however, their greater durability. The catalogue, which is bound in cloth, is finely printed, contains a large number of excellent illustrations, and is in every way an admirable publication.

Force and Suction Pumps.

The illustrated catalogue of the P. B. Grove Pump Company, of Philadelphia, Pa., con-tains all information necessary to purchasers of their pumps. The "Acme" force and suction pump is made with seamless drawn brass cylinders, and so constructed that, after being cylinders, and so constructed that, after being placed in the well, in case of accident the cylinders may be detached by merely taking out one pin, without disturbing the position of the pump or even allowing it to loose its priming. All the cylinders and valves of this pump are made of brass. A table accompanying the illustration gives the price of the pumps with all necessary fittings for of the pumps with all necessary fittings for wells of from 10 to 130 feet in depth. The company also make the "Challenge" submerged double-action force pump, the Non-pareil double-action force and suction pump, the "Boss" double-action submerged force pump and the ordinary wood pumps. Besides the several pumps mentioned, the catalogue contains an illustration and description of Grove & Tubb's water engine, which is a sort of combinination of water engine and sort of combinination of water engine and pump, its peculiarity being that it can be placed any distance from the lever or handle, which is worked like an ordinary pump, the force developed being transmitted to the engine by water-pipes. It is therefore recommended for mining purposes and similar operations. At the end of the catalegue is given a short list of pump fittings and sun-

Fruit Dryers.

The seventeeth annual catalogue of the "Zimmerman Fruit Dryer" has just been issued by the Zimmerman Manufacturing Company of Cincinnati, Ohio and Burling-ton, Iowa. The catalogue contains cuts, descriptions and prices of five different types of dryers, varying in size from 20 to 200 square feet of drying surface, and weighing from 150 to 1100 pounds. The dryers are made almost entirely of galvanized iron, thus maintaining a clean and bright surface. Below the dryer is a furnace or stove having dampers at the bottom to regulate the admission of air, which, entering, is heated by contact with the furnace, then passed up among the fruit trays and out through a covered chimney at the top, thus producing a continuous upward current, which, in the large dryers, is increased by so connecting the smoke-pipe with the ventilating-pipe that the ascending current from the furnace helps the upward draft. The trays or racks of galvanized iron for holding the fruit rest upon ledges placed at the sides. The dryer is readily portable and may be used outdoors or inside where it can be connected with

machines for preparing the fruit, besides devoting a number of pages to testimonials received from persons using their dryers. The Zimmerman Manufacturing Company further announce that they are authorized agents for the Howe scales, and are pre-pared to furnish them to their patrons at wholesale prices.

Charleston Industries.

Messrs. Hart & Co., importers of hardware, cutlery, bar iron, &c., of Charleston, S. C., have favored us with a copy of a recent publication entitled, "Charleston, Her Trade, Commerce and Industries," by John E. Land. This books contains an account of the commercial and manufacturing interests and agricultural resources of Charleston, be-sides a description of the climate and soil of the city and adjacent country. The first 70 pages are devoted to a historical sketch, showing the growth, importance and pres-ent condition of the commerce, manufac-tures and industries of Charleston. The re-resident presents in detail the represents. tures and industries of Charleston. The re-mainder presents in detail the representa-tive houses, giving a brief history of their growth, together with the management un-der which they at present carry on business. Any one desiring information concerning Charleston, more especially with reference to the extent and condition of her industries, will find much veryll information contained will find much useful information contained in this book.

Sheffield, Ala.

The Alabama Improvement Association have issued a circular containing informa-tion in reference to the establishment of a large manufacturing city at Sheffield, Ala. A description of considerable length is given of the coal and iron fields lying in the Sheffield district, and the facilities for transpor-tation of material by land and water. A tation of material by land and water. A special chapter of the pamphlet is devoted to the Great Warrior Coal Field, it being the report submitted by J. C. Killebrew to Maj. Thomas Peters, of Birmingham, Ala. The report contains tables giving a list of coal seams, their thickness and quality, together with a table of analyses of the different coals, which are claimed to average about the same as the Connellsville coal in composition. There are also given numerous analysis delphia, shortly after which it was put to practical use in supplying air to a blast furnace. The Weimer blowing engines were all formerly fitted with flexible valves, but within the past two years they have introduced a series of all-metal circular valves, made of the necessary area for the highest piston speed attainable, and which may be depended upon to operate for at least five years without nead to average about the same as the Connellsville coal in composition. There are also given numerous analyses of iron ore and limestone, by Prof. N. N. Lord. Sheffield is located in Colbert County, at the head of navigation on the southern bank of the Tennessee River. The bluffs on which the city is to be built are over 100 feet high, overlooking the river, the surrounding country being a fertile agricultural region. made of the necessary area for the highest piston speed attainable, and which may be depended upon to operate for at least five years without needing any repairs. The Weimer blowing machinery is classed under five heads, as follows: For anthracite further than the column of the city site, at a distance almost continuously of from 18 to 60 miles, are the coal and iron beds. The pamphlet states that the rate of transportation of pig iron by boat to St. Louis is \$1 per ton. The iron by boat to St. Louis is \$1 per ton. The sale of lots will begin on May 8, the lots to be sold at public auction to the highest bidder.

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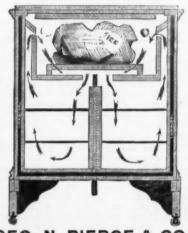
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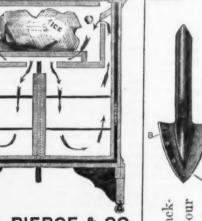
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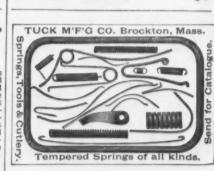


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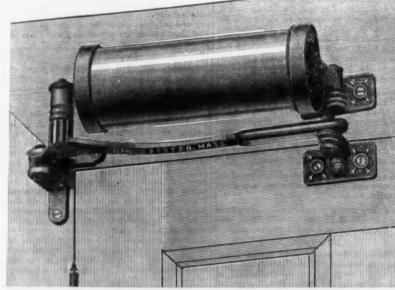
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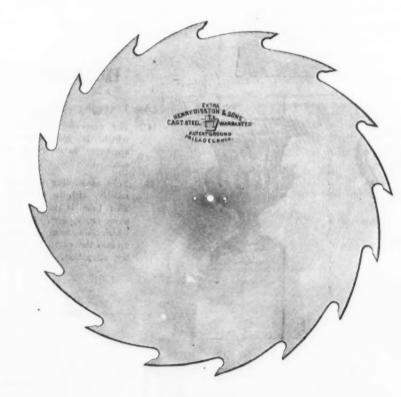
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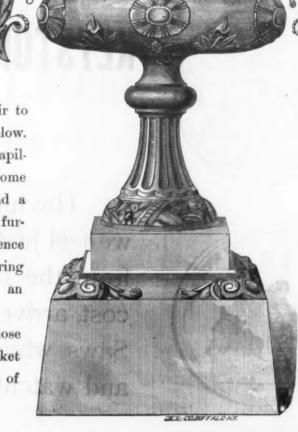
IRON RESERVOIR VASES.

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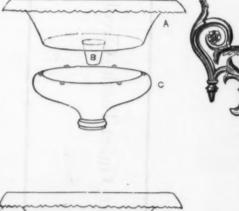
These Vases are made with a reservoir to hold water, as shown in explanation below. The moisture being drawn upward by capillary attraction, the earth does not become hard or caked, as in ordinary vases, and a constant and even supply of moisture is furnished the plants. It is found by experience that the Reservoir Vases do not need watering oftener than once in 10 to 15 days, an invaluable feature for Cemetery Use.

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EXPLANATION.

- A. The earth receiver.
- C. The reservoir for water, which is filled through apertures, as shown in the
- B. Tube connecting the earth receiver with the reservoir. This tube is packed with or sponge, through which the moisture is drawn up into the earth by capillary attraction.







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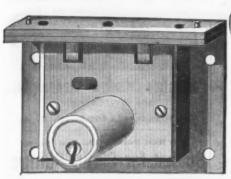
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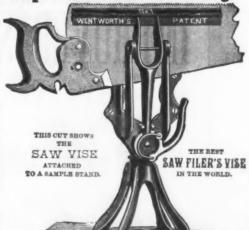
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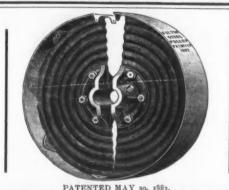
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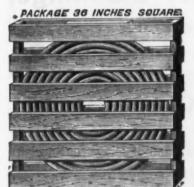
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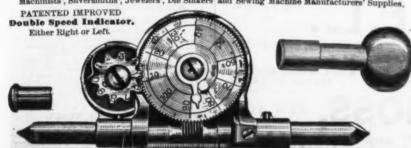
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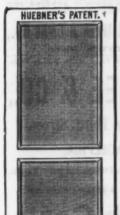


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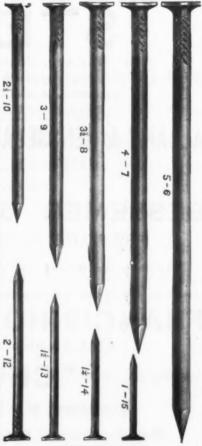
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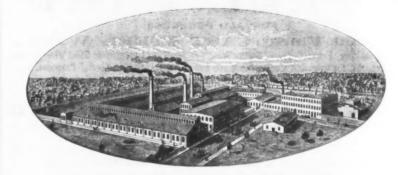
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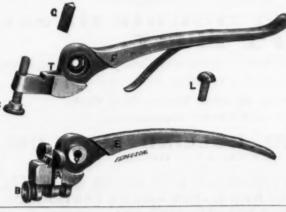
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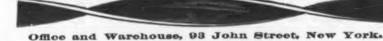
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Swiss Pattern Hand Bells Connell's Door Bells. dis. 15&10 Gt. Western & Kentucky Cow, new list. dis. 60 Gt. Western & Kentucky Cow, new list. dis. 60 Borling Macchines. Upright, without Augers. List, \$5.59 Angular, without Augers. List, 6.75 Bolts.—Eastern Carriage Bolts. dis. 85 @ 85&5 Philadelphia Carriage Bolts. dis. 85 @ 85&5 Philadelphia Carriage Bolts. dis. 50&10 Stanley, Wrought Shutter. dis. 50&10 Braces.—Barber's. dis. 40&6 Hackus. dis. 50&5 American Ball. dis. 50&5 American Ball. dis. 50&20 Cast Fast Joint, Narrow. dis. 40&20&20 Cast Loose Joint, Broad. dis. 50&20 Cast Loose Joint, Broad. dis. 60&20 Cast Loose Joint, Broad. dis. 60&10 Cast Loose Joint, Broad. dis. 60&10 Cast Acorn, Loose Pin. dis. 60&10 Cast Mayer's Loose Pin. dis. 60&10 Cast Mayer's Loose Pin. dis. 60&10 Wrought Loose Pin. dis. 60&20 Hind Butts. dis. 60&25 Hind Butts. dis. 60&25 Farker. dis. 70&2 Clark. dis. 60&25
Wrought Loose Joint dis. 60&75g Blind Butts Parkef dis. 70&2 Clark dis. 70&2 Clark dis. 75 Shepard dis. 75 Shepard dis. 75 Shepard dis. 75 dis. 50 dis.
1880. dis 50: Enterprise dis 204:10 Catlery. Walden Pocket new list ne Pennsylvania Knife Co. new list ne Landers, Frary & Clark, J. Russell & Co., Lamson & Goodnow Mfg. Co. and Meriden Cutlery Co., Manu facturers' prices net. Brawing Knives. Hart Mfg. Co. 8. dis 70:
Adjustable Handle
Files. Micholson Disston. dis 40 @ 40&10 ; Butcher Fluting Machines. Eagle—3½ in. roll. Crown—4½ in. roll. Crown—4½ in. roll. Crown—6 in. roll. Crown—8 in. roll. Geneva Fluter.
Favorite com. Fluter and Sad Iron. # doz., \$10.50 net
Hammers,
Hunt
"Pol'ed and F't'd & Blued & P't'd.31 28 26 25 24 23 dis 25&10 % Clinton
Lightling
Hunges. Hinges. Strap and Ts. Nos. 5 6 7 8 9 10 Vulcan. 26 23 21 20 19 18 dis 10.85 8 Ausable. 30 27 25 24 23 22 dis 25&10 8 Pol'ed and P't'd. 31 28 26 25 24 23 dis 25&10 8 "Pol'ed and P't'd. 24 23 21 20 19 18 dis 12&5 6 "Pol'ed & P't'd. 31 28 26 25 24 23 dis 25&10 8 "Pol'ed & P't'd. 32 21 20 19 18 dis 12&5 6 "Pol'ed & P't'd. 32 21 20 19 18 dis 12&5 6 "Pol'ed & P't'd. 34 23 21 20 19 18 dis 25&10 8 "Pol'ed & P't'd. 24 23 21 20 19 18 dis 25&10 8 "Pol'ed & P't'd. 24 23 21 20 19 18 dis 25&10 8 "Pol'ed & P't'd. 54 25 21 20 19 18 dis 25&10 8 "Pol'ed & P't'd. 54 25 21 20 19 18 dis 25&10 8 "Pol'ed & P't'd. 54 25 21 20 19 18 dis 25&10 8 "Pol'ed & P't'd. 54 25 21 20 19 18 dis 25&10 8 "Pol'ed & P't'd. 54 25 21 20 19 18 dis 25&10 8 "Pol'ed & P't'd. 54 25 21 20 19 18 dis 25&10 8 "Pol'ed & P't'd. 54 25 21 20 19 18 dis 25&10 8 "Pol'ed & P't'd. 54 25 21 20 19 18 dis 25&10 8 Electric. 9 dos., net \$18.00 Walton Straw Knives. 9 dos., net \$19.00 Walton Straw Kni
Lauterus. Buckeye. large list, net; small list, net Tubular. No. 0, \$7.50; No. 1, \$0.00 ≱ doz. net Guards, 40¢ extra. Lawn Mowers.—Pennsylvania. new list, Philadelphia dis 30&5 Excelsior. & &3 Lawn and Gurden Pumps. Holland Patent list, \$5.00, dis 10 ≰
Marrocks.
Landers, Frary & Clark's Petroleum
Long and Short Cutter new list, 60 g Pennsylvania Pattern dis 50 g Inlocoln's diates dis. 70&10 g Lanceln's Grates dis. 70&10 g Lanceln's Grates dis. 25&10 g Brass Lequor Cocks, new list Jan. 1, 1880 dis. 55 g Cork Lined Cocks dis. 25&10 g Meat Cutters dis. 25&5 g Platon's dis. 25&5 g Stoneruf dis. 25&5 g Stoneruf dis. 25&5 g Stoneruf dis. 25&5 g Hale's new list, dis. 50, 10&2 cash American dis. 25&6 g Hale's dis. 25&5 g Flanes dis. 25& g Planes dis. 25& g Ogontz dis. 25& g Ohio and Auburn dis. 20&10 g Bailey S, R. & L. Co dis. 20&10 g Plane Ironss dis. 20&10 g Plane Ironss dis. 20&10 g Plane Ironss dis. 20&10 g Stanley's Adjustable dis. 65&10 g Stanley's Adjustable dis. 65&10 g Bailey's Adjustable dis. 65&10 g
Picks.—New list
Lamont Combination. 4 gross lots \$42.00 Lamont Combination. 1 gross lots \$42.00 Imitation Emerson. # dos. \$2.00 Imitation Emerson. # dos. \$2.00 Example. Stanley Boxwood. diss. 708.10 \$ Stanley Ivory. diss. 55 \$ Steelyards.—Hart's Pattern. dis. 40&10 \$ Per dos. \$44.50 17.75 22.00 28.50 81.00 35.50
Per dos
Clipper No. 10, Bronsed Blade, Boxed and Sharpened Goxed And Sharpened An
Cross-Cut Champion Tooth. Boynton's Lightning Cross-Cut, new list. dis 40 5 Boynton's Lightning Buck Saws, Cross-bar. dis 40 5 Boyels and Spades. Oliver Ames & Sons, new list. dis 50 65 50&5 Griffiths. dis 50 65 50&5 Rowland. 40 10 5 \$ 10 24 6 5 24 6 5 3 46 Mrs. Potts' Patent. dis 55 5
Mrs. Potts' Patent. dis 30 5 Stone. Washita Extra. \$\Pi\$ 33\(\delta\) Washita No. 1. \$\Pi\$ 16c Washita No. 2. \$\Pi\$ 51c

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Cutlery.—Pocket American Shear Co.'sdi Butcher Knives, Wood's, Lap Bolster, Square Handledi Steak Knivesdi Lap Bolster, Oval Handledi	8 40 %
Handledi	B 40 %
Lap Bolster, Oval Handledl	8 40 %
Sticking	8 40 g
Skinning di Butcher, Common Round Handle, Wood's di Shoe Knives, Wood's di	8 40 g
DividersCook'sdi	8 25 g
Dog Collarsdi	1 20 g
Door Springs.—Torrey's Rod. P doz Imitation Torrey's Rod. P doz Gem Coil, new list. dis 500	\$1.62 1.45
Crown. # doz Warner's # doz	\$1.25
Door Stops.—Thurston's	2.00
Drawer Knobs,—Thurston'sdi	
Drills.—Morse Bitt Stock	
Emery.—Wellington Mills	b 10¢
Turkish, in 10 % cans	D 8¢
Enameled Ware.— Standard Mfg. Co. Kettles	50 g
Felloe Plates,-Wrought	0 6
Files.—American File Codis Nicholson File Codis	40 %
Fluting Machines.—Knox List, \$4.00die	25 %
Forks.—W. C. & Co. Manure	50 % 60 %
Gimlet Bits.— Genuine German, No. 125, 1-32 to 8-32 dor Pierce's	\$1.00 .88
Class Cuttors Combination Glass Cutter	
and Knife Sharpener	\$1.00
Grub HoesK. P. & Co.'s No. 2, \$11.50 \$ doz. dis	15 %
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Hangers & Rellers.—Anti-Friction. dis Acme Rollers.—dis Climax. dis Common Hangers. dis	
Common Rollersdis	00 %
Hand Screws,dis	10 %
Hatchets.—C. F. Dowse, new listdis 3	35 ×
Hny Knives.—Lightning	net 4.00

Hooks and Staples.—Brewers (new list)...dis 60 %
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Sinks. Magee Patent.
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Skates. Union. Skates.—Union.
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Oxford Rink Roller.
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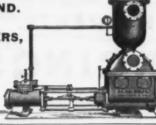
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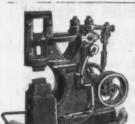
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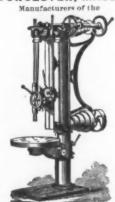


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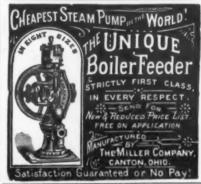
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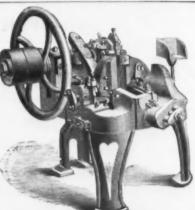
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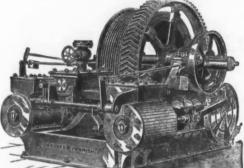
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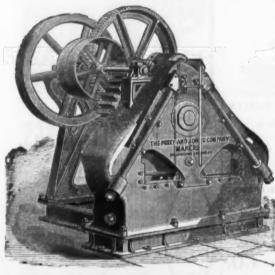
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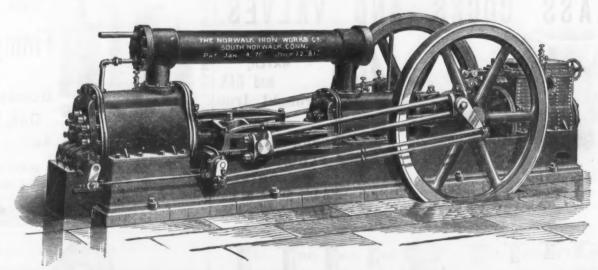
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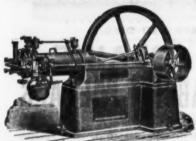
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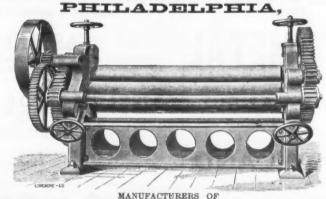


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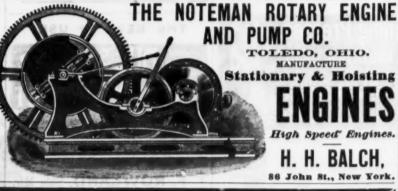
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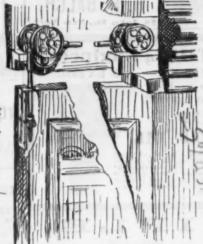
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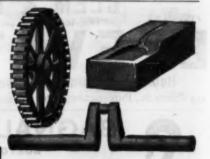
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